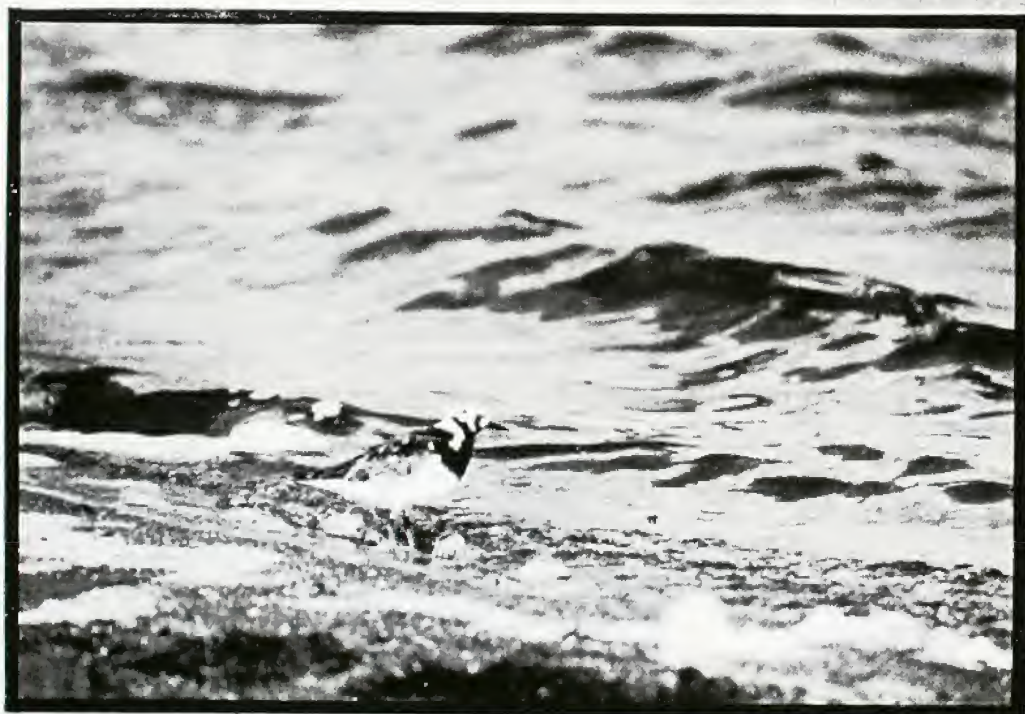


IOWA BIRD LIFE

Spring 1990 Volume 60 Number 2



IOWA ORNITHOLOGISTS' UNION

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FRONT COVER: Ruddy Turnston, Spirit Lake, 21 May 1990. Photo by Steve Dinsmore.

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The IOWA ORNITHOLOGISTS' UNION, founded in 1923, encourages interest in the identification, study, and protection of birds in Iowa and seeks to unite those who have these interests in common. *Iowa Bird Life* and *I.O.U. News* are quarterly publications of the Union.

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W. Ross Silcock, Christmas Bird Count & Winter Field Reports Editor, Box 300, Tabor, IA 51653
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Original manuscripts, notes, letters (indicate if for publication), editorials, and other materials relating to birds and bird finding in Iowa should be sent to the editor. Accepted manuscripts will generally be published promptly, depending on space available, with the following absolute deadlines: 15 November for the Winter issue; 15 February for the Spring issue; 15 May for the Summer issue; and 15 July for the Fall issue. Most manuscripts will be refereed. All material should be typed double-spaced or hand printed in ink on 8 1/2 by 11 inch paper. Authors should pattern their style after a current issue of the journal. If you want more detailed guidelines or advice regarding the appropriateness of your topic for *Iowa Bird Life*, send a self-addressed stamped envelope to the editor.

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Anyone observing birds in Iowa is encouraged to report their findings on a quarterly basis to the Field Reports editors. Sample reporting and documentation forms suitable for duplication are available from the editor (send self-addressed stamped envelope to Jim Dinsmore, 4024 Arkansas Dr., Ames, IA 50010). An article describing the reporting process is also available.

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*Deadline for receipt of reports: 15 January. For forms and instructions write: W. Ross Silcock, Box 300, Tabor, IA 51653.

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The birdline is a recorded summary of interesting recent bird sightings in Iowa. At the end of the report you can leave a message and report recent sightings. Be sure to give your name and phone number as well as the location of the bird and date seen. Call in as soon as possible after sighting a rare bird. Jim Fuller checks the reports daily and updates the recording on Monday, so make sure Sunday sightings are reported by Sunday night.

I.O.U. NEWS

Send items of interest for the newsletter to the editors (J. Hank and Linda Zaletel, 715 West St., Colo, IA 50056).

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The following materials may be obtained by writing the editorial office (Iowa Bird Life, 4024 Arkansas Dr., Ames, IA 50010):

*Order form for back issues of *Iowa Bird Life*: send self-addressed stamped envelope.

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REPORTING NEBRASKA BIRDS

Sightings of Nebraska birds, including those within the Nebraska portion of DeSoto N.W.R., should be reported to Loren and Babs Padelford, 1405 Little John Road, Bellevue, NE 68005. Formats for reporting and documentation are the same as for Iowa.

ADDRESS CHANGES

Please send address changes/corrections to Francis Moore, 336 Fairfield St., Waterloo, IA 50703.

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FALL RAPTOR MIGRATION ALONG THE CEDAR RIVER IN BLACK HAWK COUNTY, IOWA

DAVID JOHN CONRADS

Large concentrations of migrating diurnal raptors have been observed at several places in the eastern United States (Heintzelman 1986). These concentrations are associated with local topographical features such as mountain ridges and coastlines, which influence migratory routes. These features, known as leading lines, are defined as "topographical features, usually long and narrow, with characteristics that induce migrating birds to follow them. The birds are influenced by these lines in choosing their direction of flight, being so to speak led by them" (Mueller and Berger 1967).

Other features can also serve as leading lines. Malmberg (1955) reported that in Sweden, migrating raptors tend to follow forested areas and avoid cultivated plains. He also noted that rivers and their associated valleys are important leading lines. In Iowa, much of the forested area is found on bottomlands and slopes along streams (Thomson and Hertel 1981). Raptor migration has been documented along the Mississippi River in northeastern Iowa (Stravers et al. 1986, 1987) and the Loess Hills in southwestern Iowa (Varland 1982). In the fall of 1988, I studied raptor migration along the Cedar River in Cedar Falls, Black Hawk County, Iowa. The objectives of this study were to: 1) count and identify migrating raptors, 2) determine the path of raptor migration, and 3) trap and band migrating raptors.

METHODS

Raptor movement was observed from a blind approximately 0.2 km from the Cedar River near Ulrich Park in northwestern Cedar Falls. The north-facing blind was built halfway up a sloping ridge in an old field about 20 m above the river. The field was bordered by wooded ravines on the east and west, an overgrown fencerow on the south, and the Cedar River greenbelt to the north. Observations were made on 10 days between 15 October and 8 November 1988 for a total of 34 hours. Raptors were identified to species when possible, otherwise to genus. Some raptors were not identified. The path of migrating raptors was recorded by drawing arrows on a data sheet indicating their flight direction as they passed the blind.

A live Rock Dove was used to lure migrating raptors towards the banding station. Hawks that tried to capture the pigeon were caught in a 42 ft by 8 ft mist net positioned around the pigeon lure. Some hawks approached from behind the blind and seized the pigeon; they had to be driven into the net. All captured raptors were taken to the blind for measurement and banding.

Raptor migration was also observed for one day at Lookout Park in northeastern Cedar Falls. This park is located 75 m south of the Cedar River on an east-west bluff 30 m above the river and provides an unobstructed view of the Cedar River. The same observational data were recorded as at the northwest Cedar Falls site.

RESULTS

Daily totals of raptor migration at the northwest Cedar Falls site are given in Table 1. In 34 hours of observation, 185 raptors were seen passing the site (5.4 raptors/hr). Red-tailed Hawks represented 84% of raptors observed. On 24 September 11 raptors (six Red-tailed Hawks, four Broad-winged Hawks, and one Turkey Vulture) were observed migrating past Lookout Park in 1.75 hours of observation.

The path of the raptors was also documented. Sixty percent (111) of the raptors followed the southeasterly course of the river and its associated valley in urban Cedar Falls. The others appeared to continue due south, moving away from the river and following the western edge of Cedar Falls.

Trapping was only attempted at the northwest Cedar Falls site. Eleven Red-tailed Hawks were captured, measured, and banded. Seven were immature birds and four were adults. The trapping rate was 0.3 birds/hr. One Rough-legged Hawk, two Cooper's Hawks, and one unidentified accipiter made passes at the pigeon lure but were not caught. Red-tailed Hawks were the only other raptor species to make passes at the lure.

Table 1. Daily totals of migrating raptors seen in northwestern Cedar Falls in fall 1988.

SPECIES

DATE	TV	O	SS	CH	NG	UA	RS	SH	RT	RL	UB	PF	UR	TOT	HRS	AVE
15 Oct	-	-	-	1	-	1	-	-	14	1	-	1	4	22	3.25	6.8
18 Oct	1	-	-	-	1	1	-	-	14	-	-	-	3	20	6.00	3.3
19 Oct	-	1	1	-	-	1	-	1	33	-	-	-	-	37	3.25	11.4
21 Oct	-	-	-	-	-	1	-	-	40	-	-	-	1	42	5.00	8.4
22 Oct	-	-	-	3	-	-	1	-	31	-	2	1	1	39	5.75	6.8
24 Oct	-	-	-	-	-	-	-	-	7	-	-	-	-	7	1.00	7.0
26 Oct	-	-	-	-	-	-	-	-	11	-	-	-	-	11	4.00	2.8
4 Nov	-	-	-	-	-	-	-	-	3	-	-	-	-	3	1.25	2.4
7 Nov	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2.00	0.5
8 Nov	-	-	-	-	-	-	-	-	3	-	-	-	-	3	2.50	2.4
totals	1	1	1	4	1	4	1	1	156	2	2	2	9	185	34.0	5.4

Abbreviations: TV = Turkey Vulture, O = Osprey, SS = Sharp-shinned Hawk, CH = Cooper's Hawk, NG = Northern Goshawk, UA = unidentified accipiter, RS = Red-shouldered Hawk, SH = Swainson's Hawk, RT = Red-tailed Hawk, RL = Rough-legged Hawk, UB = unidentified buteo, PF = Peregrine Falcon, UR = unidentified raptor.

DISCUSSION

My observations indicate that migrating raptors use the Cedar River as a leading line during their passage through the Cedar Falls area. Red-tailed Hawks were the most numerous raptors to use the Cedar River as a leading line in this study. It should be noted, however, that there was only one observation during the Broad-winged Hawk migration. Dinsmore et al. (1984) indicate mid to late September as the peak of Broad-winged Hawk migration through Iowa. The one day of observation at Lookout Park indicates that some Broad-winged Hawks may use the Cedar River as a leading line. Petersen (1966) reported 5,000 Broad-winged Hawks migrating in late

September in Waterloo, which is adjacent to Cedar Falls and is also on the Cedar River. However, there are insufficient data to draw any real conclusions as to the extent Broad-winged Hawks use the Cedar River as a leading line.

The Cedar River appears to be as important as a leading line for migrating Red-tailed Hawks as the Loess Hills (Varland 1982) and the Mississippi River (Stravers et al. 1986, 1987). However, since the Mississippi River Valley is much wider than the Cedar River Valley, many more Red-tailed Hawks probably pass there undetected.

The Cedar River appears to be a rather unimportant route for some raptors, notably the Turkey Vulture, American Kestrel, and Merlin. It is possible that these passed earlier in migration when observations were not made. The few accipiters observed stayed close to the tree line, often below the canopy. It is probable that many more accipiters use the Cedar River as a leading line, but because of their migratory behavior of staying close to cover, they usually pass through undetected.

The path taken by the raptors is of interest because it suggests that raptor migratory behavior is influenced by urban areas. Their route once past the blind is not positively known, but 60% kept to the river course despite its rather easterly direction through Cedar Falls. It is possible that the 40% that leave the river course are influenced by urban Cedar Falls or it may be that a due south flight is more efficient under certain local weather conditions (i.e., strong north winds) than maintaining the river-related route. Further observations away from the river in both rural and urban areas may help answer these questions.

One-third of all birds that made passes at the pigeon came from somewhere behind the blind. This may indicate that as many as one-third of all raptors pass higher on the ridge. Since the pigeon lure was displayed to all raptors observed in front of the blind and only periodically when no birds were in sight, one-third is probably a conservative estimate.

Raptor trapping rates at the northwest Cedar Falls station were higher than those reported at the Loess Hills and Mississippi River stations. Varland (1982) trapped hawks at a rate of 0.1 birds/hr in the Loess Hills, while Stravers et al. (1986, 1987) trapped 0.1 birds/hr. along the Mississippi River. Since the northwest Cedar Falls station was closer to the river than the other studies, raptors may prefer to stay close to rivers. Rivers provide good thermal activity, river valley forests provide good cover, and prey species are often more abundant close to them. The Cedar River's rather narrow floodplains and ridges and the bordering agricultural areas may concentrate raptors using the river and, therefore, increase trapping rates.

CONCLUSIONS

In comparison with the other two Iowa studies, the Cedar River appears to be a good leading line for migrating raptors, especially Red-tailed Hawks. The effect of urban areas on raptor migration is not fully known, but my observations indicate that urbanization may influence raptor migration routes. Further studies may help answer this question.

Similar studies at other Iowa rivers would provide further understanding of raptor migration through this state. With the rise in statewide interest in raptor migration (Jackson 1988), permanent observation points at several statewide locations, managed by local raptor migration enthusiasts, could aid in better understanding raptor migratory behavior and in educating the public on the importance of raptors to our environment.

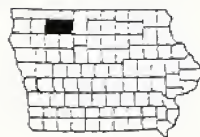
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Department of Biology, University of Northern Iowa, Cedar Falls, IA 50614

BIRDING THE RUTHVEN AREA

JAMES J. DINSMORE



The pothole country in Clay and Palo Alto counties near Ruthven has long been noted for its waterbirds. This region is on the edge of the area of Iowa that was most recently covered by glaciers and thus has rolling terrain with many shallow depressions (or potholes) on its landscape. These potholes, when filled with water, form shallow wetlands that attract the birds the area is noted for. Although most of the marshes in this area have been drained, those that remain form one of the richest wetland regions of Iowa. In many ways this area appears similar to parts of western Minnesota and the eastern Dakotas. Ornithologically, this region is best known for the variety of nesting water birds, although many waterfowl and shorebirds also migrate through here. Here I emphasize the nesting birds. The best time of year to bird the area is from mid May through mid June. Wet years are better than drought years, but a variety of marsh species can be seen in almost any year. The numbers in parentheses in the article refer to locations on the map (Figure 1).

Start 0.7 miles west of the town of Ruthven at the intersection of highway 18 and county road N18 (1). Drive north on N18 4.2 miles to a small pulloff on your right on the west edge of Mud Lake (2). Along the way, you will pass across Lost Island Lake, a good place to look for waterfowl early in spring, but dominated by fishermen in the summer. Scan Mud Lake for ducks and other waterbirds. Black Terns and American White Pelicans commonly feed here and both Eared and Western grebes and a few late ducks like Lesser Scaup and mergansers have been seen here in summer. By mid June, the best time to stop here is early morning or in the evening when broods of Mallard, Blue-winged Teal, Canada Goose, Wood Duck, and Redhead are evident along the lake's edge. Other species that sometimes nest nearby include Gadwall, Northern Pintail, Northern Shoveler, and Canvasback. This is also a good place to listen for Swamp Sparrow and Marsh Wrens; both nest in Smith Slough, just across the road to the west.

From Mud Lake, proceed north 0.5 mi and park in the small parking lot (3) on the right, just opposite a gravel road that goes off to your left toward Trumbull Lake. The rolling grassy area to the east is Dewey's Pasture, a state-owned wildlife management area (Figure 2). This area contains about 25 wetlands and is one of the few places in Iowa where you can recapture the feel of what much of northwestern Iowa looked like prior to settlement. If you have time, walk out onto the area. The tops of the low rises provide a vantage point where you can view the potholes. Yellow-headed Blackbirds are the most characteristic bird of this region and are readily visible. You should be able to find American Coot, Pied-billed Grebe, Redhead, and Ruddy Duck. Listen for Marsh Wrens, Soras, and Virginia Rails, and, in the wet meadows around the marshes, Sedge Wrens. Willow Flycatchers commonly nest in the plum thickets dotting the area. Mallard, Blue-winged Teal, and Canada Geese are also common nesters. To see marsh birds and their nests well, you will need to enter the water-covered areas. Waders are best as the cattail cover is too thick for a canoe in most marshes. Slowly walk through the cattails (just along the open water-cattail edge is the best place) and look for the floating nests of grebes, terns, and coots and the intricately woven nests of wrens and blackbirds. Both Least Bittern and American

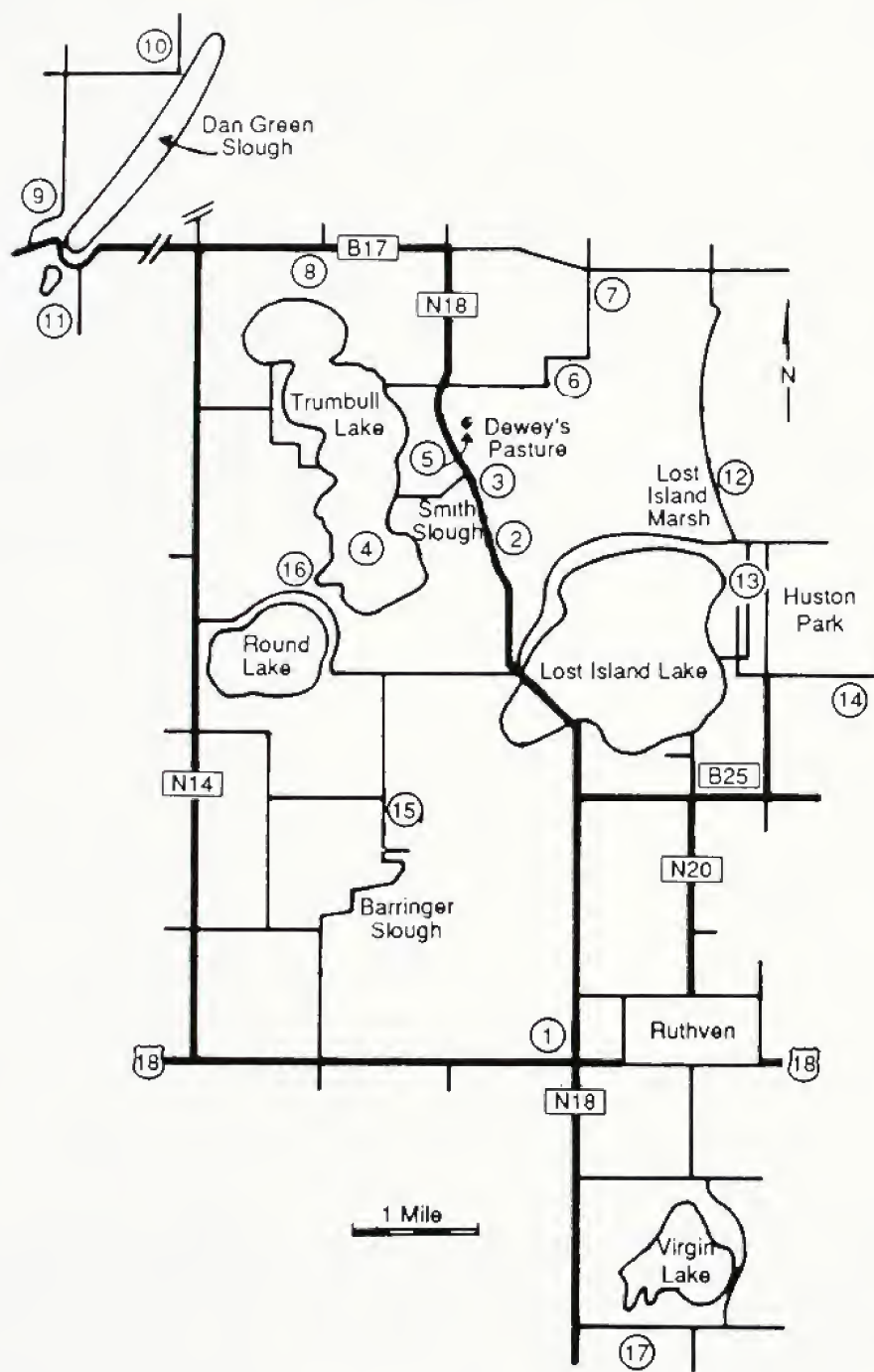


Figure 1. Birding sites in the Ruthven area. Circled numbers refer to sites described in the text.



Figure 2. Aerial view of Dewey's Pasture. Photograph was taken from above eastern shoreline of Trumbull Lake looking ENE. Dewey's Pasture is in center, Mud Lake on the right, and Smith Slough in the lower right. County road N18 cuts horizontally across the photo. The Iowa DNR has recently purchased the farmland in the lower left and is restoring wetland basins (which show up as dark areas in the photo) on this area.

Bittern nest here but are seldom seen unless you flush them from the cattails. Another way to find American Bittern is to listen for them in the evening or early morning. Your list of birds won't be long but you should be able to see some birds up close or find their nests. One hazard is that ticks are abundant in the uplands. A pair of rubber boots helps keep them off.

After leaving Dewey's Pasture, enter the gravel road across the road from the parking lot and drive west toward Trumbull Lake. Orchard Orioles sometimes nest along this drive and should be watched for here and elsewhere in the region. The DNR has restored several marshes along this road, and in spring Canada Geese may nest on some of the nesting islands that they have constructed. The road follows the north edge of Smith Slough before entering a wooded area along Trumbull Lake. If possible, stop occasionally and listen for woodland birds. Yellow Warblers are abundant along this road and catbirds, thrashers, grosbeaks, and yellowthroats are also common. At the fork of the road (0.9 miles) go right; this road takes you onto a point of land that extends into Trumbull Lake (4). Scan the lake for ducks, terns, and gulls. A stray Franklin's Gull often appears here or on other nearby lakes in summer. American White Pelicans commonly feed here all summer, and Western Grebes are also a possibility. You may wish to go back to the road fork and follow the other branch to its end at the outlet of Smith Slough into Trumbull Lake. If you have a canoe, you can launch it here and paddle left (roughly east) into Smith Slough.

Take the gravel road from Trumbull Lake back to the blacktop road (N18) by the Dewey's Pasture parking lot and turn left (north). A quarter of a mile to the north you will pass the Iowa DNR Ruthven unit headquarters on your right (5). A few Green-backed Herons commonly nest in the windbreak on the north side of the headquarters.

If you plan to visit the grove, it is best to notify the unit office first. The heron nests are high in the spruce trees.

Continue north on the blacktop and take the first gravel road (0.3 miles) to your right. Gray Partridge are common in the area and are often seen along this road. This road borders the north side of Dewey's Pasture with farmland on your left. A King Rail brood was seen in 1981 along the small ditch (0.4 miles from the blacktop) that drains from the pasture into Dewey's Pasture. There is a parking lot on your right (narrow drive through the trees to get to it), but access to most of Dewey's Pasture is more difficult from this side and to go very far you probably will need to get your feet wet. The road soon turns left and then right at a farmhouse, and then left again. As you drive, watch for any of the waterbirds you might have missed earlier. This is a good area for Swamp Sparrow and wrens, and a White-faced Ibis was seen here in 1982. Just before the second left, stop (6) and look south to the far eastern end of Mud Lake. That end of the lake is not visible from stop #2 but can be seen with a spotting scope from here. There is a rock pile on the east end of the lake where American White Pelicans, Double-crested Cormorants, Ring-billed Gulls, and other species like Caspian Terns may rest in summer. After this stop, continue north 0.6 miles to where the road meets blacktop road B17 (7).

From this point, a side trip to Dan Green Slough is worthwhile. Note where you are and then turn left on B17. Go 3 miles to the stop sign at the intersection with county road N14. On the way, you will pass a marshy area (2.4 miles) where a creek drains toward Trumbull Lake (8). Geese, ducks, and shorebirds often feed here but parking is hazardous. At the B17/N14 intersection, continue straight (west) for 1.5 miles. The road curves around the south end of Dan Green Slough. On the west side of the marsh, a gravel road goes north (right), then almost immediately turns east and then north again. At this last turn, stop and scan the marsh (9). You are up high and have a good view. Ducks, grebes, Forster's and Black terns, and geese are almost always present here in summer. For another good view of Dan Green Slough, continue north 1.0 mile to the first crossroad and then east (right) for 1.0 mile. Where the road reaches the marsh and turns left, there is a good view of the north end of Dan Green (10). Forster's Terns commonly nest here and again ducks, geese, grebes, and coots should be evident. When finished here, retrace your path to B17, turn left, and drive to the first gravel road on the right. This road goes along the edge of the south end of Dan Green (11), another good place for water birds and also for shorebirds if the water levels are low. This part of the marsh is privately owned so do not trespass. Go back to B17 and retrace your path to the intersection north of Dewey's Pasture where we started this diversion (#7).

From this intersection, continue east on B17 for 0.8 miles and take the first gravel road to the south (right). This road goes through the low country on the east side of Dewey's Pasture and Mud Lake. These wetlands are difficult to walk and there are few good viewing points. The best is 1.7 miles south of B17 where you have a good view of Lost Island Marsh on your right (12). Again, terns, ducks, geese, coots, and grebes should be evident. Common Moorhens have nested here and may be found some years. Black-crowned Night-Herons commonly feed in this marsh. Continue south 0.4 miles to the next intersection and then go straight. This will take you into Huston Park, a Palo Alto County park (13). Follow the road 1.1 miles through the park. Part of this drive takes you through a wooded area on the east side of Lost Island Lake, one of the few places you will find woodland birds in this area. At the end of the park (stop sign), turn left and go 0.2 miles to a blacktop road. If you want to visit another marsh, go straight (east) onto a gravel road and continue for 0.5 mile.

Blue-wing Marsh is on your right at the bottom of the hill (14). Otherwise, turn south (right) on the blacktop and go 1 mile to another stop sign, then turn right onto B25 and go 0.5 miles west. If you wish to end your tour now, turn left onto road N20. This road leads back to Ruthven and eventually intersects with highway 18 (2.1 miles).

Two other marshes are fairly close and easy to find. To get to Barringer Slough and Round Lake, rather than turning south onto N20, continue west 0.8 miles to N18; then turn right and travel 1.1 miles to a gravel road to your left. Turn here and go west 1 mile and then turn left (south). Proceed 0.9 miles; when the road turns sharply to the right, continue straight onto a narrow lane. This lane continues for 0.7 miles and ends in a parking lot at Barringer Slough (15). Pelicans, ducks, and herons are often seen here but there is no high ground so visibility of the marsh is limited. Return 1.6 miles back to your last turn and turn left (west). Proceed about 0.9 miles; the road will turn north and pass between Round Lake on your left and the south end of Trumbull Lake on your right. There is a small parking lot on your right where you can view the south end of the lake (16). From here you can often see pelicans, gulls, and terns. Black-crowned Night-Herons and Forster's Terns often nest at Round Lake but there is no good vantage point from which to view the lake. The terns often fly to Trumbull Lake to feed, and this parking lot is a good viewing point. This is also a good place to see night-herons when they leave the lake to feed in the evening. Don't plan to see them unless it is close to sundown, though.

Another worthwhile side trip is to Virgin Lake. Start at your original starting place at the intersection of highway 18 and county road N18 west of Ruthven (1). Go south 2 miles and turn left (east) onto a gravel road. After 0.4 miles, you will see Virgin Lake to your left (17). You are high enough to have a good view of much of the marsh and can see many of the species already noted for other locations.

Although this tour has taken you to some of the best marshes in the area, there are numerous others if you want to explore further. The fun in birding Ruthven is not in the variety of birds, but rather in being able to see marsh birds in their nesting habitat. Individual marshes and their vegetation change from year to year. Because there are so many marshes in this region, you are almost certain to find at least a few marshes that have good habitat conditions for a variety of species.

Other seasons of the year also are good for birding. In March and April, large flocks of migrant waterfowl pass through here. In both spring and fall, many shorebirds pass through the area. They are found on flooded fields or on marshes where the waterlevel is low, exposing large mudflats. In some years, many herons and American White Pelicans gather here in late summer. Winter is generally the least interesting time as there is usually almost no open water. Some years numbers of Mallards and Canada Geese winter here but most water birds leave the area every fall.

4024 Arkansas Drive, Ames, IA 50010

CHRISTMAS BIRD COUNT 1989-90

W. ROSS SILCOCK

At last we exceeded 42 reporting locations! There were 44 this year, with new counts from Sigourney (name changed from Keokuk County to avoid confusion with Keokuk) and Algona (Table 1). Returning after a one-year break were Fort Dodge and Lehigh, and (temporarily?) lost this year were Ottumwa and Swaledale.

As counts go, this year's was just an average affair. Total species found was "only" 122, down from the whopping 136 last year but still historically a good total (Table 2). The extremely cold December weather affected the later counts, but probably helped the first weekend counts such as Davenport. Comparing the differences in species found between the two years is interesting. Birds seen last year but not this year are American White Pelican, Mute Swan, Ross' Goose, Brant, Redhead, Barrow's Goldeneye, Turkey Vulture, Sandhill Crane, Bonaparte's Gull, Great Black-backed Gull, Barn-Owl, Snowy Owl, Gray-checked Thrush (in Illinois), Gray Catbird, Yellow-headed Blackbird, and Red Crossbill. Quite a list. Of these, perhaps only a few might be expected most years: Mute Swan, Ross' Goose, Redhead, Snowy Owl, and Gray Catbird for example. There were even some seen this year and not last: Townsend's Solitaire, Bohemian Waxwing, Pine Grosbeak, and Eurasian Tree Sparrow. Of these, only Pine Grosbeak could be considered a real rarity, as this is only the 6th Iowa CBC record. This is the 4th CBC record for Eurasian Tree Sparrow, but the first in Iowa, as previous records were of birds across the river in Illinois. Eurasian Tree Sparrows are spreading slowly and should establish themselves in Iowa in the next few years. This is the 8th CBC record for Townsend's Solitaire.

The high count was again Davenport, this time with 86 species, only one short of last year's record. Compiler Pete Petersen has his sights set on 100! In an otherwise average year, only two other counts reached 70: Saylorville at 77 and Cedar Rapids with an outstanding 71.

REGIONAL COMMENTS

Mississippi River counts as a group usually lead the state in species diversity, this year averaging 63 per count. Not to be overlooked are the two northernmost counts, Yellow River Forest and Dubuque, where fewer species are found but where unusual species often occur. Mississippi River counts led in owling hours and owling miles, but the 6.2 owls (Screech, Great Horned, and Barred) per party hour was low compared to other parts of Iowa. Highest was 11.9 in the Middle Third, followed by 9.4 in the Southern Third, 8.3 along the Missouri Valley and only 6.0 in the Northern Third.

Missouri River counts as usual produced the most birds per count at 16,940, largely due to waterfowl concentrations at DeSoto NWR and Shenandoah. Observers in this region also spent more time in the field, and had the highest average party-hours per count. These observers also drove a lot of miles, 391 per count, compared with only 233 in the Northern Third.

Table 1. Site Data for 1989-90 Christmas Bird Counts

Location	Date	Total Species	Total Birds	Field Obs	Pts	Miles Hr Car	Owling Ft Hr	Feeder Pt	Temp Hr L H	Snow Depth	Wind	Sky am/pm	
MISSISSIPPI RIVER													
1. YellowRivFor	31Dec	55	5378	14	6	29	266	10	1	6	2	19 28 4	cloudy
2. Dubuque	30Dec	45	5500	25	8	50	345	36	0	0	5	4 24 30 3	cldy,rain,snow
3. Clinton	31Dec	65	19300	10	4	40	396	15	4	32	0	0 23 30 1	cldy,snow
4. Princeton	28Dec	68	7088	8	4	35	411	10	5	38	3	7 31 39 3	ptycldy
5. Davenport	17Dec	86	17564	25	9	68	521	22	8	79	26	52 5 17 1	clr/ptycldy
6. Muscatine	30Dec	61	10752	11	4	39	340	13	5	47	3	6 27 31 1	cldy,fog
7. Oakville	20Dec	62	10482	9	4	36	283	9	4	42	0	0 -6 8 6	cldy,snow
8. Burlington	16Dec	63	6698	10	4	32	240	20	3	24	6	32 -8 12 6	clr/ptycldy
9. Keokuk	31Dec	66	20977	9	5	40	389	26	3	38	4	8 24 39 0	cloudy
MISSOURI RIVER													
10. Sioux City	23Dec	53	6923	14	9	44	219	16	3	30	6	3 -24 10 2	ptycldy/clr
11. DeSoto NWR	16Dec	56	59905	31	7	56	394	25	0	0	0	0 -11 14 2	clear
12. Omaha, NE	30Dec	60	9825	45	13	102	601	47	7	43	3	4 24 33 4	cloudy
13. Glenwood	1Jan	47	3861	8	3	27	378	5	2	23	0	0 14 34 0	clear
14. Shenandoah	27Dec	59	15859	14	5	41	383	22	1	3	4	14 27 44 1	clear
15. Tristate	23Dec	48	5269	7	3	27	369	2	1	1	0	0 -20 10 3	clr/ptycldy
NORTHERN THIRD													
16. Decorah	30Dec	52	4939	13	5	35	295	23	2	10	0	0 15 21 3	cloudy
17. BremerCo.	16Dec	43	4515	5	3	25	282	14	0	0	0	0 5 24 1	cldy/ptycldy
18. Mason City	16Dec	42	5157	16	7	46	336	22	3	20	9	25 5 13 2	cloudy
19. Lehigh	17Dec	20	912	4	4	10	80	2	0	0	2	8 -2 11 2	clear
20. Algona	28Dec	34	1778	11	4	21	167	29	1	4	4	2 25 46 0	ptycldy
21. Fort Dodge	16Dec	32	1668	6	4	13	111	4	1	5	17	30 2 30 2	cldy/clr
22. Spirit Lake	16Dec	42	9102	9	6	32	236	16	0	0	34	42 4 15 2	cldy/ptycldy
23. Cherokee	16Dec	43	6119	11	5	34	435	4	1	4	8	18 3 16 3	ptycldy/clr
24. Westfield	3Jan	36	1737	4	3	20	159	18	2	18	2	6 22 36 2	clr/cldy
MIDDLE THIRD													
25. Lost Nation	18Dec	50	6323	15	5	40	414	8	1	12	0	0 -9 14 1	clr/ptycldy
26. North Linn	30Dec	46	4394	13	6	46	449	17	3	40	2	10 0 20 2	ptycldy
27. Cedar Rapids	16Dec	71	13914	29	12	87	544	49	3	23	23	25 -10 12 2	NE 10-10
28. Iowa City	16Dec	63	16629	34	11	64	489	42	1	15	6	24 -5 12 1	W 0-5
29. Amana	30Dec	42	2640	11	3	18	150	11	1	3	0	0 25 30 0	N 0-5
30. Cedar Falls	17Dec	51	5398	10	5	29	233	12	0	0	0	0 2 18 1	NW 15-15
31. Marshalltown	23Dec	35	3011	15	6	30	243	3	0	0	4	15 -26 -2 2	SW 10-15
32. Eldora-Union	20Dec	36	2074	5	3	21	262	11	1	1	2	6 -1 4 2	NE 10-15
33. Ames	16Dec	56	16544	33	13	84	359	53	1	5	6	11 -2 12 2	N 0-5
34. Alleman	2Jan	29	1145	3	1	8	64	1	0	0	0	0 20 45 0	S 15-15
35. Saylorsville	17Dec	77	29116	28	10	81	523	57	2	11	0	0 7 16 1	W-NW 5-15
36. Des Moines	23Dec	55	23757	11	7	47	284	20	1	2	1	1 -22 3 2	S 5-10
37. Boone Co.	30Dec	55	7228	24	12	72	361	40	3	13	8	30 25 30 1	W 0-5
38. Jamaica	19Dec	54	12690	7	4	31	276	16	2	25	1	5 -1 10 2	NW 0-5
39. Sac Co.	16Dec	29	1480	10	3	16	143	12	0	0	4	12 6 12 2	clr/ptycldy/clr
SOUTHERN THIRD													
40. Sigourney	16Dec	32	492	4	2	12	132	5	0	0	2	2 -17 -10 3	cloudy
41. Rathbun	16Dec	59	14287	21	8	67	720	8	5	20	12	30 -2 12 5	W 5-10
42. Red Rock L.	17Dec	50	8535	10	7	28	237	11	0	0	6	4 -4 16 1	S 7-7
43. Lucas	16Dec	27	1036	4	2	12	92	2	0	0	0	0 5 17 0	NW 5-10
44. Lamoni	1Jan	28	484	2	1	8	105	1	0	0	2	3 18 34 0	clear
TOTAL		2183	412485										

The Northern Third, as expected, had the fewest species per count at 38, although this was close to the meager 39 in the Southern Third. Perhaps also expected in this colder part of Iowa was the highest feeder party total and average number of feeder-parties per count for the state.

The Middle Third had by far the most total birds, presumably because this is where most of the counts are. However this region also had the most observers per count (17) and the most field parties per count (7). The latter figure is usually a good indicator of how well a count circle is covered.

The Southern Third again found fewer species than might be expected, a puzzling result. I suspect that relative to the rest of the state, the combination of less coverage and milder weather allowing dispersal of birds explains the low species diversity. This region averaged fewest field parties (4) and field observers (8) per count for the state.

Table 2. Christmas Bird Count Data, 1989-90.

Location	Gr Bl He	Sn Go	Ca Go	Wo Du	Gr Te	Am Du	Ma Ph	No Ga	Am Wi	Ri Ne	Le Du	Co Go	Co Me	Ba Ea	No Ha	Sh Ha	Co Ha	Ac Sp	Re Sh	Re Ta	Ro Ha	Bu Sp	Am Ke	
MISSISSIPPI RIVER																								
1. Yellow Riv. For.	1		25			10	466				1	1		14		1		2		43	10		8	
2. Dubuque			1				618						1	36	3			2		23	2		6	
3. Clinton	2		2,102			400	4,732					18		33	2	1	2			37	8		22	
4. Princeton		2	61			3	208		2	2	2	229	281	119	3	1	5		1	44	4		18	
5. Davenport	12		56	3	21	25	4,137		7	1	3	9	849	38	186	2	1	2		40	5		37	
6. Muscatine	1		132	1		2	407		3			3	1	61	2	2			25	4		4		
7. Oakville			47			12	565	2		1		2	8	104	1	1	2		1	34	15		10	
8. Burlington	33		24		6	8	250							90				1		39	10		8	
9. Keokuk	3		94			7	795	1	1		1	51	20	268	1	4	1			36	4		18	
Subtotal	52	2	2,541	4	27	467	12,178	3	11	4	5	13	1,153	349	880	14	12	12	3	5	321	62	6	134
MISSOURI RIVER																								
10. Sioux City			2		28	1	3,370	1	46		1	72	35	4	1	1	1			9	1		1	
11. DeSoto NWR		35,425	1,701				12,502				1	155	21	68	4			2		47	3	4	13	
12. Omaha, NE		1	98		10	2	1,270		13	1		106	7	38	2	2	2			53	2		38	
13. Glenwood			14				2							3	9	2				25	1		27	
14. Shenandoah	1	900	2		14	8	7,431	1						42	8	2				40	1		94	
15. Tristate							800							5	1	1				28	1		6	
Subtotal	1	36,366	1,817	0	52	12	25,375	2	59	1	1	333	64	160	25	8	1	4	0	202	9	4	179	
NORTHERN THIRD																								
16. Decorah			1				8							1	1	3	1			38	5		8	
17. Bremer Co.			127											2						3	2		1	
18. Mason City	1		76			2	845											1		11	2		2	
19. Lehigh														2						4			1	
20. Algona			3																	6			1	
21. Fort Dodge															1					7				
22. Spirit Lake		6	5,338	1			21		2			1	2	1	3									
23. Cherokee			25				47							1						24	2		4	
24. Westfield							9					3		1						12	1		6	
Subtotal	1	6	5,570	1	0	2	900	0	2	0	0	1	3	2	6	7	3	1	1	105	12	0	23	
MIDDLE THIRD																								
26. Lost Nation			12				27							2	4		1			26	9		10	
27. North Linn			6				102									1				7			9	
28. Cedar Rapids		1	566	1	1	8	1,610		2	2			56	10	3	1				40	1		11	
29. Iowa City	1		235	6		3	3,029			1				4	2			3		36	6		7	
30. Amaria	1						2											1		7			1	
31. Cedar Falls			756			3	1,137									1				5	2		2	
32. Marshalltown			15																	11			2	
33. Eldora Union							9												1	4	2		3	
34. Ames	2		4				42				1				2	1				15	2		6	
35. Alkerman			30				1,000													4			4	
36. Saylorsville			72		11	20,000	5	6	3		2	100	200	8	8	2		1		49	4		21	
37. Des Moines	1		54			6	1,636		2	1			8	11	18					32	1		5	
38. Sac Co.																				7	1		1	
39. Boone Co.							3							3	1			2		25	3	3	7	
40. Jamaica		2	2,100			5	6,000	1		1					1	1				29	2		6	
Subtotal	5	3	3,839	7	2	36	34,596	7	10	2	1	3	163	211	45	19	8	2	6	2	297	33	3	95
SOUTHERN THIRD																								
41. Sigourney																4				14			10	
42. Rathbun			592				4,501		4					15	7			5		61	3		29	
43. Red Rock L.			1,315			2	4,757			2		30	8	19						32	1		8	
44. Lucas														2	1	1				10			5	
45. Lamora																				5			6	
Subtotal	0	0	1,907	0	0	2	9,258	0	4	0	2	0	30	8	36	12	1	0	5	0	125	4	0	60
TOTAL																								
	59	36,367	15,674	12	81	519	82,337	12	86	12	9	18	1,642	634	1,127	77	32	16	19	7	1,050	120	7	491
	Gr Bl He	Sn Go	Ca Go	Wo Du	Gr Te	Am Du	Ma Ph	No Ga	Am Wi	Ri Ne	Le Du	Co Go	Co Me	Ba Ea	No Ha	Sh Ha	Co Ha	Ac Sp	Re Sh	Re Ta	Ro Ha	Bu Sp	Am Ke	

Some interesting data can be derived from the CBC relating to regional distribution of certain species within Iowa. This discussion is limited to those species listed in Table 2. There were 54 species found in all five regions. Interesting among this group are Gadwall, Bald Eagle, Wild Turkey, Northern Bobwhite, Short-eared Owl, Belted Kingfisher, Tufted Titmouse, White-throated Sparrow, Rusty Blackbird, Brown-headed Cowbird, and House Finch. At the other end of the spectrum, no species was restricted to one region although some had a high percentage of their total number in a particular region, as shown in Table 3.

Of these, nine are largely Mississippi River specialties, with one from the Missouri River and a winter incursor from the Northern Third. The Cooper's Hawk figure is interesting but may be an artifact of the rather low total number found.

	Me	Gr	Ri	Wi	No	Ki	Co	Ri	He	Ro	Mo	Ea	Gr	Ba	Lo	Sh	Be	Re	Re	Ye	Dy	Hy	No
	Pa	Ph	Ne	Tu	Bo	Sn	Bi	Gu	Do	Do	Sc	Ho	Ow	Ow	Ow	Ow	Ki	Wo	Wo	Wo	Wo	Wo	Wo
MISSISSIPPI RIVER																							
1. Yellow Riv. For.				115			6		222	28	4	10	2				8	27	64		51	22	3
2. Dubuque				33			2		395	67			2	1			5	17	43		66	20	14
3. Clinton			42	1	3	1	8		828	235	7	20	15	1	1		4	10	56	3	106	26	21
4. Princeton	1	8	12	64	4				247	233	9	10	7				3	18	32		76	15	17
5. Davenport			23	4			17	114	1,387	504	10	13	7	1	1		10	18	39	3	208	34	16
6. Muscatine			46				2	1	368	222	8	10	9				6	45	55		121	18	30
7. Oakville			110	8	37		3		98	76	7	17	10				3	17	57	1	114	34	26
8. Burlington		7	12	4	27		3		125	93	4	8	5				5	9	34	4	56	14	20
9. Keokuk			6	14	27	2		8	15	483	79	1	7	3	2	1	4	2	62		112	42	21
Subtotal	1	15	251	243	98	3	26	25	136	4,143	1,537	50	97	59	4	3	48	163	442	11	910	225	178
MISSOURI RIVER																							
10. Sioux City			8	22	20				1,062	2	2	7					3	1	19		55	14	26
11. DeSoto NWR			226	28	125				161	37	3	7			6	2			45	1	55	7	154
12. Omaha, NE			38	35	15		1		159	4	8	25	9	1			4	44	91	1	148	16	39
13. Glenwood	1			3	12				147	60	2	21	1						29		24	5	24
14. Shenandoah	1		104		50				133	10	1	14	2	5	2				30		44	8	18
15. Tristate			69	23	17				103	6	6	5	3						24		10	2	28
Subtotal	2	0	445	111	239	0	1	0	0	1,765	119	22	79	15	13	4	7	65	238	2	336	52	289
NORTHERN THIRD																							
16. Decorah			8	57			1	7	298	47	7	2	5				6	9	74		45	18	5
17. Bremer Co.	1		28	27					210	2	1	1	3	1				10	21		33	8	2
18. Mason City	3		104						125	20	2	3							11		49	16	7
19. Lehigh									5			2							7		28	9	1
20. Algona		10	101	40					51	6		5	1						9		28	14	8
21. Fort Dodge		8	21	6					27			1	2					3	12		39	14	7
22. Spirit Lake		31	24						49	3		6			1				12		57	27	8
23. Cherokee		29	127						276	37	2	3				1	1				52	19	18
24. Westfield	1	8	67		11				19		1	11	2						22		25	12	10
Subtotal	1	90	440	130	11	1	8	0	0	1,060	115	13	34	13	2	1	10	22	190	6	356	137	66
MIDDLE THIRD																							
26. Lost Nation			89	114	8				162	11	3	9	7				16	21		140	23	19	
27. North Linn		8	72	14	16		2		168	74	3	30	7	3			1	11	42		118	11	8
28. Cedar Rapids			28		14	3	2		1,350	202	4	10	10	2			10	32	61	9	139	20	19
29. Iowa City			23	27	20				213	41	2	9	10			6	2	57	37		87	8	32
30. Ames			4	13					60	33	4	4	3				25	18	1	30	1	15	
31. Cedar Falls		4	9	10					250	43	1	1	3	1	2	1	1		7		12	9	2
32. Marshalltown			62						61	18	1						11	16		42	10	2	
33. Eldora Union		16	187	35					45	1							1	7	10		26	2	6
34. Ames		15	86	2			1		303	24	7	4	4		2	2	4	53	179	22	10		
35. Albia			2						42			1						2	7		14	6	2
36. Saylorsville			162	16			8	1	5	319	39	7	15	9	18	6	4	49	76	1	101	22	51
37. Des Moines			25				2		579	30	2	4	3				2	3	34	1	69	12	16
38. Sac Co.			18	24					172			2						2	7		24	10	2
39. Boone Co.		33	92	150			2		900	19	11	20	4	2		3	24	98	107	36	11		
40. Jamaica			114	1	15		1		118	18	1	5	2	3	1	1	36	24		37	6	12	
Subtotal	0	76	973	406	73	3	18	1	5	4,772	563	46	114	63	29	17	27	262	511	12	1,125	198	207
SOUTHERN THIRD																							
41. Sigourney			42						23		2	14	1	3				2	2	1	2	4	3
42. Rathbun	2		48	50	91		1		82	23	10	11	2	2	2	1	17	37		51	9	11	
43. Red Rock L.		27	14		8		1		56	1		1				1	2	23		58	17	7	
44. Lucas			4						49						2			10		15	1	5	
45. Lamoni			1						10			3						5		6	2	6	
Subtotal	2	27	109	50	99	0	1	1	0	220	24	12	29	6	5	2	2	21	77	1	132	33	32
TOTAL																							
	6	208	2,258	940	520	7	54	27	141	11,960	2,348	143	363	156	63	27	94	563	1,458	26	2,869	645	772
	Me	Gr	Ri	Wi	No	Ki	Co	Ri	He	Ro	Mo	Ea	Gr	Ba	Lo	Sh	Be	Re	Re	Ye	Dy	Hy	No
	Pa	Ph	Ne	Tu	Bo	Sn	Bi	Gu	Do	Do	Sc	Ho	Ow	Ow	Ow	Ow	Ki	Wo	Wo	Wo	Wo	Wo	Wo

REGULAR SPECIES

Despite the "average" nature of this year's count, some species still reached 10-year highs in numbers, and there were even a couple of mini-invasions. Native sparrows and finches were at or near 10-year highs, while diving ducks, gulls, and blackbirds were near 10-year lows (Table 3). Species staging mini-invasions were Rufous-sided Towhee, White-winged Crossbill, and Common Redpoll.

The worst miss this year had to be Redhead. This is only the second time it has been missed in the last 10 years. Other serious misses were Snowy Owl, seen 6 of the last 10 years, and Yellow-headed Blackbird, 7 of 10.

Among the geese Canadas were up, continuing an erratic but steady increase in wintering numbers, while there were far fewer snows than last year's incredible half million plus. This year, 36,000 snows was only the fourth highest total in 10 years. The single white-front was the lowest count in 10 years.

Table 2. Christmas Bird Count Data, 1989-90

	Ph Wo	Ho La	Bl Ja	Am Cr	Ca Ch	Tu Ti	Re Br	Wh Nu	Br Cr	Ca Cr	Wi Cr	Go Sp	Ea Ki	To So	Am Ro	Ce Wa	No Sh	Lo Sh	Sh Sp	Eu Si	Ye Ru	No Ca	Ru To	Am Tr		
Location																										
MISSISSIPPI RIVER																										
1 Yellow Riv. For.	10	37	164	116	112	18	2	80	2	1	2		6	14	2					129	206		489			
2 Dubuque	3	12	139	176	270	48		101	1				34	1	53					486	269		318			
3 Clinton	3	86	431	773	361	39	9	177	64		2	15	6	37	104					1,148	358		1,868			
4 Princeton	3	52	216	596	271	17	10	89	26			18	2	32	44					668	203		908			
5 Davenport	4	58	233	826	842	51	8	203	46	6	2	4	1	9	26					1,685	814		632			
6 Muscatine	3	8	280	74	372	47	1	149	21	1		2	20	105	26					1,496	362		980			
7 Oakville	6	570	206	1,940	243	42	1	74	21	2		1	1	3						1,209	462	1	1,091			
8 Burlington	3	484	167	427	212	18	1	24	12	3	2	2	9	4	222					460	409		602			
9 Keokuk	7	52	287	12,562	236	86	4	68	4	5	1		24	27	37					1,219	292		242			
Subtotal	42	1,309	2,123	17,490	2,921	366	36	965	197	22	9	0	42	103	0	232	514	0	0	8,500	0	3,375	1	7,130		
MISSOURI RIVER																										
10 Sioux City		43	38	85	206		2	36	5				1	226	35	1				268	36	1	157			
11 Des Moines NWR	1,459	158	76	279		1	52	5				3	30	76	14					1,071	133	5	1,204			
12 Omaha, NE		151	460	657	39	1	138	10	2			1		4	230					2,060	274	2	670			
13 Glenwood		162	136	178	26	40	3					35			48					515	80	1	305			
14 Shenandoah		25	188	31	110	9	2	46	7					10	71	3				1,101	172		395			
15 Tri-state		85	123	70	112	10		17	1					6	3					458	127		746			
Subtotal	0	1,612	820	858	1,542	84	6	329	31	2	0	0	4	65	1	322	401	1	3	5,473	0	722	9	3,477		
NORTHERN THIRD																										
16 Decorah	3	8	258	263	121	3	3	71	7					21	372	4				509	1	185	201			
17 Bremer Co.	4	347	72	59	62		1	25	1					1	20	1				233	133		283			
18 Mason City		15	89	213	228			78	4					4						242	93		418			
19 Lehigh			20	19	56			23												170	40		2			
20 Algona			21	70	152		1	28	2											57	19		454			
21 Fort Dodge		21	67	158	152			64	1					2						196	68		20			
22 Spirit Lake		21	56	64	355		6	94	21						10					362	7		380			
23 Cherokee		88	192	299	290		4	77	8					6	56	2				906	35		232			
25 Westfield		7	41	10	207			47						5	12	2			1	719	14		182			
Subtotal	7	507	816	1,155	1,625	3	15	507	44	0	0	0	0	39	470	9	0	1	3,384	1	594	0	2,172			
MIDDLE THIRD																										
26 Lost Nation	1	48	240	336	189	41	3	77	9			2	8	2	2	1				539	360	1	1,038			
27 North Linn	1	2	101	93	169	38	11	116	3				2	174	61					573	188		511			
28 Cedar Rapids	4	56	258	1,394	484	67	4	112	7	4			17	14	45		1			946	762	1	657			
29 Iowa City		6	125	186	373	59	2	75	2	1		1	10	83	362	1				1,809	369		1,091			
30 Ames	2	18	70	160	110	7	3	35	10					5	6					325	100		225			
31 Cedar Falls	1	59	30	604	74		2	27	1					7	10	2				364	51		170			
32 Marshalltown		66	61	166	112	7	1	46	1			1								107	177		617			
33 Eldora Union		119	66	46	41	9	1	40	5						5					176	65		72			
34 Ames		6	198	5,400	436	15	7	183	31		5	3	9	1	25					1,615	221		809			
35 Alleman		22	36	136	29			8							23					275	19	1	16			
36 Saylorsville		2	191	276	329	4	3	86	5			1	45	188	282	4	1			1,575	161	8	2,209			
37 Des Moines	1	74	88	14,000	189	19	4	50	1	1				67			1			3,488	162		780			
38 Sac Co.		12	34	111	56			38						2						74	21		23			
39 Boone Co.		164	371	367	37	2	210	15	2	3				22	275	1	1			1,142	185	3	262			
40 Jamaica		149	119	80	201	3		49	1	1		1	2	219	54	1				654	101		590			
Subtotal	10	639	1,781	23,357	3,183	306	43	1,152	91	7	7	1	11	93	0	784	1,150	10	3	13,662	0	2,932	14	9,070		
SOUTHERN THIRD																										
41 Sigourney		21	41	52	20			21	1					4	3					37	19	2	5			
42 Rathbun		440	416	271	220	24	12	50	2			2	5	4			1			522	254		1,502			
43 Red Rock L.		5	62	221	110	22		48								27				233	107		373			
44 Lucas		60	67	76	67	2		14									1						43			
45 Lamoni		11	41	14	40	2		12	1						4			1		46	9		17			
Subtotal	0	516	607	623	489	70	12	145	4	0	0	0	2	10	0	11	27	0	2	1	808	0	432	2	1,897	
Totals																										
	59	4,613	6,147	43,483	9,760	829	112	3,098	367	31	16	1	59	271	1	1,388	2,562	20	8	33,187	1,805	26	23,746			
	Ph Wo	Ho La	Bl Ja	Am Cr	Ca Ch	Tu Ti	Re Br	Wh Nu	Br Cr	Ca Cr	Wi Cr	Go Sp	Ea Ki	To So	Am Ro	Ce Wa	No Sh	Lo Sh	Sh Sp	Eu Si	Ye Ru	No Ca	Ru To	Am Tr		

Best of an average year for dabbling ducks were American Black Duck and Gadwall, both about twice as numerous as their 10-year averages. Diving ducks, including mergansers, were down significantly. The Redhead was absent, and the other *Aythya* ducks were all near 10-year lows.

After the great numbers seen in recent years, raptors were found only in average numbers. Exceptions were Bald Eagle, again at a 10-year high, continuing a nationally well-documented trend. Redtails were numerous also, but only about 50% above their 10-year average.

Gallinaceous birds were generally well above average numbers, although only Wild Turkey reached a 10-year high. This species continues to increase rapidly; to 940 birds this year from only 127 in 1982.

Among the rails and shorebirds (what-in winter?), both American Coot and Killdeer were down as might be expected due to the December cold, but Common Snipe was an anomaly; the total of 54 was a 10-year high.

Gulls were scarce, with only 168 total ringbills and herrings counted, very low

	Fe Sp	So Sp	Li Sp	Sw Sp	Wh Th	Wh Cr	Ha Sp	De Ju	La Lo	Sn Bu	Sp Sp	Re Wi	We Me	Me Sp	Ru Bl	Co Gr	Br Co	Bl Sp	Pu Fi	Ho Fi	Wh Cr	Co Re	Ph Si	Am Go	Ho Sp	
MISSISSIPPI RIVER																										
1. Yellow Riv For	2	3			2	1		564				1				7	70			44				145	233	1,839
2. Dubuque	50	12				2		368											57				36	288	1,361	
3. Clinton		97		42	2			1,019	37			7	2	1	2	1			18	8	12		138	371	3,208	
4. Princeton		45		7	3	7		563				34	1	3	2	7			5	5			11	166	1,317	
5. Davenport	1	175		3	8	11		1,006	1			734	1		6	11	73		32	66	17		96	262	1,862	
6. Muscatine		54	2	1	3	4		672				2			1	4	1		22	26			108	258	4,078	
7. Oakville		21				1		569	84	35		13	3			6	2		8				42	141	2,220	
8. Burlington	3	8		1	1			891	10			5			1	1			15	12			175	187	1,421	
9. Keokuk		78		4	17			415				2				1			81	22			745	278	1,973	
Subtotal	56	493	2	56	36	26	0	6,106	132	35	0	798	4	3	19	97	84	0	282	139	29	0	1,456	2,184	19,315	
MISSOURI RIVER																										
10. Sioux City		3					6	346							1	2			8	17			57	47	499	
11. DeSoto NWR		48			3	3	78	1,663	332		23	281		96	45		2	253				4	4	366	1,333	
12. Omaha, NE		20	1		1		18	972				7	1	45		16			15	10			54	185	1,490	
13. Glenwood		2			1		18	887						3	5	1	57		4				7		841	
14. Shenandoah		11	1	4	10	30		289				3,070	4	64	45	44	17		7				4	64	1,132	
15. Tristate		10			2	9	140	1,076	3						58	3			6	3			63	131	862	
Subtotal	0	94	1	1	11	22	290	5,233	335	0	23	3,358	5	257	98	63	76	253	40	30	0	4	189	783	6,157	
NORTHERN THIRD																										
16. Decorah		6			1			320								1			118		2	3	32	146	1,616	
17. Bremer Co.		1						366	660	3		4				1			5				3	14	1,753	
18. Mason City		2						217	235	4		2				26			2	35		30	41	83	1,811	
19. Leigh								41									57							115	312	
20. Algona		1					1	79				80			160					1	1		1	10	356	
21. Fort Dodge		13						178								5			14	12		2	16	67	764	
22. Spirit Lake		1					3	225	1			1				1	2					137	78	76	1,523	
23. Cherokee							15	370	4			2	4	2					11	15		252	86	145	2,329	
25. Westfield		1					15	101					18										34	30	70	
Subtotal	0	25	0	0	1	0	34	1,887	890	7	0	89	0	22	163	92	2	0	150	63	3	424	290	686	10,534	
MIDDLE THIRD																										
26. Lost Nation		18		1	2	1		638	40								30		5				19	117	1,852	
27. North Linn		11				1		402				15							42				39	97	1,028	
28. Cedar Rapids	1	23	1		2	1		1,066	4						27	5	10		15	28	6		97	331	3,237	
29. Iowa City		50		1	1	12		595	13			4		8	4	2	100		13	2	10		36	136	7,175	
30. Arnolds		4				1		65								1			1				1	36	1,200	
31. Cedar Falls		3				1	2	239	100	27						2			1	10			16	62	1,271	
32. Marshalltown							1	258								4	3		8	17		1	5	99	1,002	
33. Eldora Union		1						96	113			1							15				14	50	784	
34. Ames		33	4		3		6	663	30				7		1				3	6			77	117	5,831	
35. Alleman							7	32											4			1	2	21	300	
36. Saylorsville		52	1	5	1	24	40	613				66	9	40	2	10			23			2	7	223	1,816	
37. Des Moines		16				1		666	27			14			4				9	29			69	96	1,342	
38. Sac Co.							16	144		12									4			2	2	75	580	
39. Boone Co.	1	18		2		6	39	445				1	2	25		25			15				19	195	1,761	
40. Jamaica		5						237	458			50	7	1					3				27	96	1,037	
Subtotal	2	234	6	9	12	45	112	6,159	785	39	0	150	0	37	101	16	175	0	181	91	6	17	463	1,744	30,215	
SOUTHERN THIRD																										
41. Sagourey		4				6		49							31										49	
42. Rathbun		45				3		1,567		3		103	83	2	3	11			85	24		8	216	307	2,432	
43. Red Rock L.		2			2	16	4	217				50				1			14	1			9	161	449	
44. Lucas								198							3								6	137	256	
45. Lamon		3						35											19	30			10	49	91	
Subtotal	0	54	0	0	8	19	4	2,066	3	0	0	153	0	117	3	3	11	0	118	55	0	8	241	654	3,277	
Totals																										
	58	900	9	68	68	112	440	21,461	2,145	81	23	4,548	9	436	384	271	348	263	751	378	38	453	2,678	6,061	69,502	
Location	Fe Sp	So Sp	Li Sp	Sw Sp	Wh Th	Wh Cr	Ha Sp	De Ju	La Lo	Sn Bu	Sp Sp	Re Wi	We Me	Me Sp	Ru Bl	Co Gr	Br Co	Bl Sp	Pu Fi	Ho Fi	Wh Cr	Co Re	Ph Si	Am Go	Ho Sp	

compared with the 17,000 or so present last year. The 10-year low for gulls was a very low 59 in 1986, when all but one were Herring Gulls.

Both doves were up, mournings at a surprising 10-year high, and rocks continuing the upward trend of recent years. Perhaps the December cold snap brought more Mourning Doves (and dabbling ducks and Common Snipes) south to Iowa than moved south out of the state prior to CBC time.

Owls were present in very good numbers, some at 10-year highs; only screech and saw-whets were reported in average numbers.

All resident woodpeckers were at or near 10-year highs, continuing a trend of increasing numbers. As for the other species, Yellow-bellied Sapsucker, primarily a migrant in Iowa, was found in average numbers, while Red-headed Woodpecker and Northern Flicker, both of which move considerably in winter depending on food or weather conditions, found Iowa suitable this early winter and were near 10-year highs.

Table 3. Species largely confined to one region of the state on the 1989-90 Christmas Bird Count.

Species	% in one region	Region
Great Blue Heron	88	Mississippi
Snow Goose	97	Missouri
American Black Duck	90	Mississippi
Bald Eagle	78	Mississippi
Cooper's Hawk	75	Mississippi
Ring-billed Gull	93	Mississippi
Herring Gull	96	Mississippi
Fox Sparrow	97	Mississippi
Swamp Sparrow	86	Mississippi
White-winged Crossbill	76	Mississippi
Common Redpoll	94	Northern

Blue Jay numbers have been high in recent years, and reached another 10-year high this year. Crows also were up, but despite the roost at Ames did not reach a 10-year high. Over the

last five years crows have averaged 44,688 per year, whereas the four years prior averaged only 10,002. This great increase is due to establishment of roosts in recent years, notably at Ames and Keokuk.

Much like the resident woodpeckers, resident Paridae and nuthatches were all at high levels, with Black-capped Chickadee and White-breasted Nuthatch at 10-year highs. Perhaps starlings are not as deadly to these native hole-nesters as once thought. Tufted Titmouse was also near 10-year highs, and Brown Creeper was above average. Red-breasted Nuthatch had a ho-hum year with average numbers. This species has not invaded Iowa in numbers for at least the last 10 years, with the high and low counts for that period 164 and 31, not much variation for 10 statewide counts.

Carolina Wren numbers were closely watched due to the cold December weather. Little effect was discerned however (even when comparing the 18 found on the seven counts held through 20 December with the 13 found on four counts after 20 December), the 31 found was only six fewer than the 10-year high of 1988-89. However while numbers may not have been affected, distribution might have, as away from the Mississippi River none were found north of Cedar Rapids, whereas last year one was at Cherokee and others were at Ames, Boone Co., Saylorville, and Des Moines. It will be interesting to see what happens next year.

Golden-crowned Kinglet, Eastern Bluebird, and American Robin were in average numbers only. Numbers of the latter, a fruit-eater, often fluctuate in tandem with Cedar Waxwing, another fruit-eater. This year the relationship held true, as waxwings were found in average numbers also.

Northern Shrikes were up while Loggerheads were down, probably a result of the cold December weather. Only 8 Loggerheads were reported, second lowest in the last 10 years, indicating that most left Iowa this winter.

All sparrows, from Northern Cardinal to Dark-eyed Junco taxonomically speaking, were at or close to 10-year highs. A spectacular 8,055 cardinals were located, about twice the 10-year average. Rufous-sided Towhees staged a mini-invasion, with an excellent total of 26; the next highest total in the last 10 years was only 13 in 1984-85. American Tree Sparrow was also at a 10-year high as was Fox Sparrow. The latter is a marginal winterer in Iowa, but 58 were found this year compared with the previous best in the last 10 years of 30 in 1987-88. Of the 58 found, most were at Dubuque which reported a surprising 50 individuals. *Zonotrichia* sparrows were in

excellent numbers compared to recent years, with white-crowned registering a 10-year high of 112.

Two open-field fringillids, Lapland Longspur and Snow Bunting, provided a contrast. Longspurs were at a 10-year high of 2,145, compared to the 10-year average of 713, while Snow Buntings were scarce. The 81 Snow Buntings reported was the second lowest total in the last 10 years; only 1982-83 with a measly nine had fewer.

Among the icterids, blackbirds were in low numbers. No major roost was found, which affected numbers of Red-winged Blackbird and Common Grackle, the two species (along with starlings) that are most abundant in Iowa early winter roosts. Meadowlarks were up however, as were, surprisingly, Rusty Blackbird and Brown-headed Cowbird. Both rusties and cowbirds are marginal winterers in Iowa.

And finally the finches, many observers' winter favorites. Purple Finches were in average numbers, but the closely related House Finch continued to establish itself statewide. A new 10-year high of 378 birds was set, an amazing increase from the first CBC record of only two just four years ago. No Red Crossbills were found, but white-wings staged an incursion, the 38 birds found being the best total in the last 10 years. White-wings have been found only on four of the last 10 Iowa CBCs. Another incursive species was Common Redpoll, with the 453 found far above the previous high count for the last 10 years of 244 in 1985-86. Redpolls are found yearly but in extremely variable numbers, as illustrated by the range in the last 10 years from this year's 453 down to fewer than 10 in three of the last 10 years. Siskins and goldfinches were both at 10-year highs. The 2,678 siskins found this year was a dramatic increase from last year when only 67 were found.

UNCOMMON SPECIES

These are listed in Table 4, showing species which are either local in occurrence but not necessarily rare, or genuine rarities. This year's rarities, Pine Grosbeak and Eurasian Tree Sparrow, were discussed above.

The best of the rest include species recorded five times or fewer in the last 10 years. There were five of these. A Prairie Falcon was seen well at Des Moines for only the 11th CBC record of this rare winter bird. Probably regular on CBCs now that observers are learning to identify it was a Thayer's Gull at Princeton, representing only the 5th CBC record, the first as recent as 1985-86. One Bohemian Waxwing was heard and seen near Glenwood on the Omaha count, for the 4th CBC record in the last 10 years, but the 18th overall. Two Vesper Sparrows were well described: from Davenport where they might be expected to occur in early winter on occasion, and also from Ames, an unexpected location. This is the 4th report in the last 10 years, but the 19th overall. Lastly, an Eastern Meadowlark was reported at Oakville (the bird was in Illinois however) and identified by the buzzy call note. Easterns probably winter regularly in very small numbers in the southeastern corner of Iowa.

REJECTIONS AND OTHER PROBLEMS

Each year I am forced to add this section, although this year problems were minimal. A few identifications were not accompanied by details for species marked in the list with "+" or "*" and were relegated to "sp." or deleted. A special problem was the Peregrine Falcon seen at Cedar Rapids and known to be attempting to winter after its release in the DNR program. Its history was well-documented in the Des Moines Register (yes, this paper reaches the hinterlands!). This bird was not listed as it was

not a wild bird in the sense that it was not from a breeding population established and unaided by man. Is nesting on buildings "unaided by man"? Is a building really just a special type of nest-box? We will have to consider these points in the future, hopefully as these birds establish themselves.

Table 4. Species found on three or fewer Christmas Bird Counts, 1989-90. Number of individuals seen is in parentheses.

Pied-billed Grebe	Davenport (1), Cedar Rapids (1)
Double-crested Cormorant	Red Rock L. (1)
Tundra Swan	Princeton (2), Keokuk (1)
Greater White-fronted Goose	Red Rock L. (1)
Northern Shoveler	Davenport (2)
Canvasback	Yellow River Forest (2), Muscatine (1)
Greater Scaup	Princeton (1)
Oldsquaw	Cedar Rapids (1)
Bufflehead	Keokuk (1)
Hooded Merganser	Davenport (2), Keokuk (4), Cedar Rapids (2)
Red-breasted Merganser	Princeton (7), Davenport (5), Cedar Rapids (1)
Ruddy Duck	Spirit Lake (1), Davenport (1)
Northern Goshawk	Cedar Rapids (1), Cedar Falls (1), Saylorville (1)
Golden Eagle	Yellow River Forest (2), Tristate (1)
Prairie Falcon	Des Moines (1)
Ruffed Grouse	Yellow River Forest (6), Decorah (4)
American Coot	Davenport (1), Burlington (1), Red Rock L. (6)
Thayer's Gull	Princeton (1)
Glaucous Gull	Davenport (2), Saylorville (1)
Northern Saw-whet Owl	Iowa City (1), Amana (1), Boone Co. (3)
Hermit Thrush	Davenport (1), Saylorville (1)
Varied Thrush	Rathbun (1)
Northern Mockingbird	Burlington (1), Ames (1)
Brown Thrasher	Saylorville (1), Des Moines (1)
Bohemian Waxwing	Omaha (1)
Field Sparrow	Clinton (10), Shenandoah (1)
Vesper Sparrow	Davenport (1), Ames, (1)
Eastern Meadowlark	Oakville (1)
Brewer's Blackbird	Shenandoah (8), Saylorville (5), Rathbun (1)
Pine Grosbeak	Decorah (5), Cedar Falls (1)
Evening Grosbeak	Red Rock L. (2)
European Tree Sparrow	Burlington (15)
Large falcon sp.	Saylorville (1)

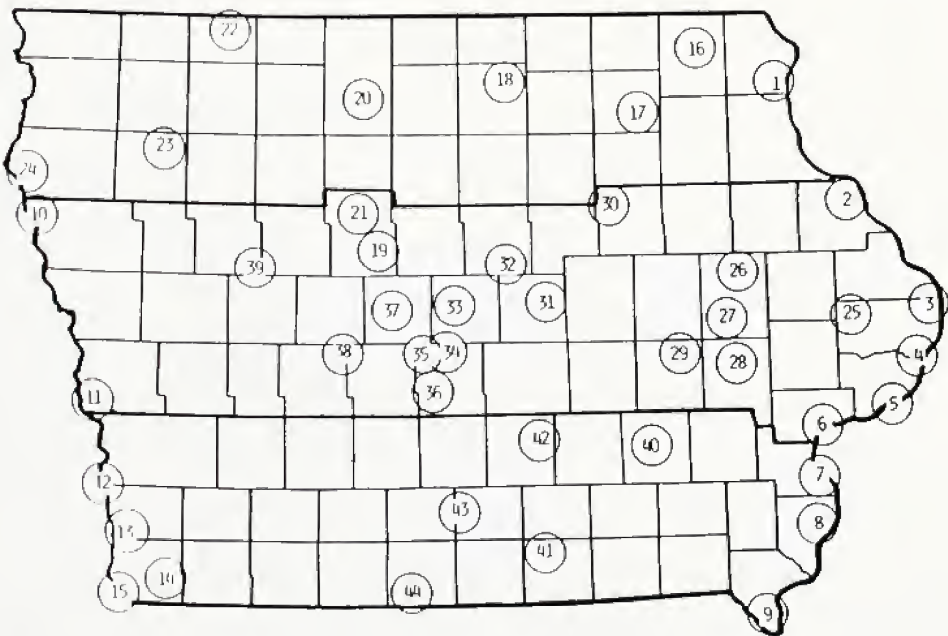
For the last three years I have deleted a Broad-winged Hawk from the same count. This year the compiler noted that "all hawks have been occasionally sighted ..., and all were sighted by experienced, competent birders." I must point out that I do not

doubt the competency of the observers, but to publish what would be an extremely significant record without any documentation would only cause confusion to future birders and ornithologists. If these hawks are indeed seen each year in December at this location, a photograph should be obtainable and would document a record of national significance. I am inclined to believe that there is no reason straggling Broad-winged Hawks (and Swainson's Hawks) should not occur in Iowa in December, although so far there are no photographs or specimens to document such occurrences.

I also received a puzzling documentation of a Snowy Owl flushed from an orchard with Long-eared Owls. The documentation did not mention presence or absence of ear tufts or size relative to the Long-ears, and I am inclined to believe the bird was more likely to have been a leucistic Long-eared Owl or possibly an "arctic" Great Horned Owl.

Finally, a report of McCown's Longspur, which if accepted would be Iowa's first record, was not accepted as it did not eliminate Lapland Longspur in my opinion. However the documentation will be referred to the Records Committee.

Box 300, Tabor, IA 51653.



IN MEMORIAM--GEORGE E. CROSSLEY

JAMES J. DINSMORE

George T. Crossley, longtime Iowa Ornithologists' Union member and former President, died in Dubuque on 21 May 1989. Growing up in an era when there were no field guides, George learned to identify birds using pictures that were published on baking soda boxes. From that beginning, he continued to enjoy birds throughout his life. He worked for Interstate Power Company where he was an engineer in the production department for 33 years. He married Frieda Blaufuss in 1947, and the two of them enjoyed birding together for many years. After he retired in 1973, he and Frieda traveled widely, visiting Africa, Peru, Guatemala, Germany, Norway, Sweden, India, New Zealand and other countries. In each, they enjoyed observing the birds that they found there. In all, he compiled a life list of almost 500 species in the United States and many more in the foreign countries he visited.

George was involved in several organizations related to his birding interest. He was active in the I.O.U. for many years and served as Vice President from 1975-77 and President from 1977-79. He was also President of The Nature Conservancy in Iowa. He was active in the Dubuque Audubon Society, being a member for more than 40 years. George and Frieda attended National Audubon Society national conventions almost yearly for nearly 40 years, and in 1988 they received the organization's William Dutcher Award for their longtime service. For some 20 years, he and Frieda ran one of the federal Breeding Bird Survey routes near Maquoketa. In recent years he had been helping with the Atlas project. In particular, I recall the organized and friendly way that George ran I.O.U. meetings. He always had time for newcomers and took special efforts to make sure that they felt welcome in the group.

4024 Arkansas Drive, Ames, IA 50010



George E. Crossley

FIELD REPORTS - WINTER, 1989-90

W. ROSS SILCOCK



WEATHER

The main feature of this winter's weather was the record cold snap of mid-December. A few CBCs were conducted prior to the main effects of the cold, but the later counts were definitely affected. In general the cold snap moved waterbirds out of the state as well as species on the northern edge of their winter ranges. It is hard to know whether the latter types actually do move out or simply perish. Some waterfowl, mostly dabblers, relocated to open or moving water such as dam spillways. It is notable that for the first time Saylorville Reservoir did not freeze completely. There was an amazing warmup, again to record temperatures, in January and February which allowed the return of many wintering species and early migrants. This movement was especially noteworthy around 9-11 February, some two weeks prior to the usual spring vanguard.

GENERAL TRENDS

This winter was ordinary by several measures: almost no record early or late dates were noted, few rarities appeared, and there were no large invasions or significant concentrations of birds except perhaps for the crow roost in Ames, which now seems of regular occurrence. Readers should read the Christmas Bird Count (CBC) data for information on early winter bird numbers.

There were some bright spots. A big flock of Canvasback was at Keokuk, Bald Eagle numbers continue to increase and include high proportions of immatures, and there were good numbers of Common Redpoll and White-winged Crossbill, both staging mini-invasions.

UNUSUAL SIGHTINGS

In strong contrast to last year, few rarities showed. This probably was due to the absence of major concentrations of birds, which tend to attract stragglers. Most of last year's rarities were waterfowl or gulls.

Only three Accidental species were reported, all of which must be confirmed by the Records Committee: Great Black-backed Gull, Lesser Black-backed Gull, and Eurasian Tree Sparrow. The two gulls will probably soon be designated Regular, while the sparrow may well be on the way to establishing itself in Iowa, even though this is only the second Iowa record. Three documentations of a putative Western Gull were received and have been forwarded to the Records Committee. If accepted this would be the first Iowa record.

There were only two Casuals reported: Black-legged Kittiwake, and Townsend's Solitaire.

Perhaps just as significant as the above rarities, are birds which are completely unexpected in winter. Notable this year in this group was a Common Yellowthroat near Iowa City. What would be a spectacular record if it had been documented was a sighting of Broad-winged Hawk.

SPECIES DATA

* documented record; record early/late dates are given in []; CBC data are not included except where useful in analysis of trends or in discussing rarer species.

Common Loon: Unusual in December were 3 at Coralville Res. on 6 Dec (JF) and 1 on 3 Dec at Saylorville Res. (SJD).

Pied-billed Grebe: 1 apparently wintered at the "hot tub of Eastern Iowa", Cedar L. in Cedar Rapids (JF, SJD).

American White Pelican: Sightings of possibly the same bird were made at Saylorville Res. 1-3 Dec (SJD) and Red Rock Res. 10-16 Dec (SJD, JF, AJ) for one of very few December records.

Double-crested Cormorant: Also rare in December, up to 5 were at Red Rock Res., with 1 still there 10 Dec (AJ, SJD).

Great Blue Heron: Often seen in December, but rare in January, 1 was near the IPL Ponds 13 Jan (DLR).

Tundra Swan: The only swans reported were identified as tundras. 2 adults wintered between Lock 14 and Princeton (JF, fide PCP), an immature was at Keokuk 31 Dec and 1 Jan (SJD), and 1 was on a Black Hawk Co. pond 22 Feb (JF).

Greater White-fronted Goose: Rare in winter, 30 at Bay's Branch 11 Feb (fide SJD) may have been early migrants.

Snow Goose: Unlike Canada Geese, migrant snows in numbers usually are found only in extreme W Iowa. Unusual therefore were 500 at Rathbun Res. 2 Dec (RLC) and 200 at Ames 17 Feb (SJD). Especially unusual are wintering birds away from W Iowa, such as the 3 which wintered at Ankeny (SJD, BE). A single snow 13 Jan at Red Rock Res. may have been wintering with Canadas (AJ).

Canada Goose: Most regularly-wintering waterfowl can be found at predictable spots statewide. Canada Goose is no exception. Noteworthy locations include Bay's Branch where 1,000 wintered (SJD) and Cedar L. where 400 were seen 1 Jan (SJD). The 2,000 at Hendrickson M. 13 Feb (SJD) were probably on the move.

Wood Duck: Now apparently wintering in small numbers statewide, usually with resident Mallard flocks.

Green-winged Teal: Wintering birds were 7 at IPL Ponds 6 Jan (BPa, LPa) and a female at Cedar L. 3 Jan (JF).

American Black Duck: Recent years have yielded good numbers; most Mallard flocks yield at least one. High count was 16 at Red Rock Res. 21 Jan (SJD). Hybrids with Mallard (they are apparently about to be declared conspecific) were reported from Big Creek S.P. 9 Dec (SJD) and Bay's Branch 26 Dec (SJD).

Mallard: Numbers were unimpressive, the largest wintering groups 6,600 at Red Rock Res. 14 Jan (SJD) and 2,300 at Bay's Branch (SJD).

Northern Pintail: Wintering numbers were very low with no more than 2 at any location. Spring returnees appeared 9 Feb when 9 were at Saylorville Res. (SJD), building up to 33 there 12 Feb (SJD).

Northern Shoveler: None wintered, representing the norm.

Gadwall: Appearing more often in recent winters, a few were found this winter, including a midwinter record of 2 at IPL Ponds 18 Jan (DLR).

American Wigeon: Usually very rare in midwinter, individuals were at IPL Ponds 5 Jan (BPa, LPa, TB) and Red Rock Res. 14 Jan (SJD).

Canvasback: The 4,000 at Montrose 9 Feb were considered "heartening" as few were there the previous 2 years (RCe). An unusual midwinter record away from the Mississippi R. was the male on Coralville Res. 1 Jan (THK).

Redhead: Almost absent this winter, the only midwinter record was of a female near the Iowa City sewage plant 1 Jan (THK).

Ring-necked Duck: Only 2 were detected in midwinter: 1 at Red Rock Res. 8 Jan (AJ) and 14 Jan (SJD), and another in Coralville's City Park was seen 16 Dec, 1 Jan, and 2 Feb (THK).

Greater Scaup: The only record after 13 Dec, when 4 females were at Lock 14 on the Mississippi R. (THK), was of a pair at Red Rock Res. 8 Jan (AJ). Spring migrants appeared 9 Feb when a pair was at Saylorville Res. (SJD). All reports included identifying details.

Lesser Scaup: Midwinter reports were from Keokuk 1 Jan, Red Rock Res. 14 and 21 Jan, and Saylorville Res., where 3 were seen 16 Jan (SJD).

Oldsquaw: There were 4 reports involving 6 birds this winter period. Apart from 1 on the Cedar Rapids CBC, late fall records were of singles at IPL Ponds 3 Dec (DLR, RoR, TB) and Red

- Rock Res. 9 Dec, the latter probably a 1st-year male (MPR). Spring records are rare, and so a good record was of 3 females at Saylorville Res. 16 Feb (SJD).
- White-winged Scoter:** The only scoter reported was a male at Saylorville Res. 9 Dec (SJD).
- Common Goldeneye:** Surprisingly, by comparison with Common Merganser, no large wintering concentrations were noted. The best midwinter count was only 8 at Red Rock Res. 8 Jan (AJ).
- Bufflehead:** Rather amazing for midwinter, considering that Redhead, the other "softie" diving duck, was almost absent, were the large counts of 79 at Cedar L. 1 Jan (SJD) and 58 at Saylorville Res. 2 Feb (SJD). A loner was at Keokuk 1 Jan (SJD).
- Hooded Merganser:** A regular winterer, usually in low numbers, midwinter reports were of 2 on Cedar L. 1 Jan and another on Saylorville Res. 9 Feb (SJD).
- Common Merganser:** Some large wintering groups were found, such as 82 on 16 Jan and 575 on 28 Jan on Saylorville Res. (SJD) and 124 on 21 Jan at Red Rock Res. (SJD). Numbers built up rapidly at Red Rock Res., with 1,000 there 28 Jan and 3,000 on 11 Feb (AJ). Highest counts for the period were of early migrants: 5,000 at Red Rock Res. by 28 Feb (AJ), 4,185 at Saylorville Res. 16 Feb (SJD), and around 1,000 at L. Manawa 8 Feb (BP, LP). Latest high count in fall was 4,000 on Saylorville Res. 7 Dec (SJD).
- Red-breasted Merganser:** I am skeptical of winter records without details for this species, which is very rare away from salt water in winter. Please submit details, especially for midwinter records. None were reported for midwinter this year. Latest was a female at Cedar L. 23 Dec (JF), and earliest a male at Princeton 17 Feb (PCP).
- Turkey Vulture:** A midwinter report away from SE Iowa and without details was not accepted.
- Bald Eagle:** This species is one of Iowa's commonest winter raptors. Large numbers occur at waterfowl concentration points throughout winter, with occasional small numbers elsewhere. L. Manawa hosted 41 9-10 Feb (BP, LP) and a "great immature count" of 78 helped make up a total of 106 found in the Quad Cities area 14 Dec (PCP). Best count from Red Rock Res. was 24 seen from one spot 28 Feb (AJ).
- Northern Harrier:** A female in W Sioux Co. 4 Jan was considered an "unusual winter bird" (JV).
- Northern Goshawk:** There were 6 sightings, about normal for most winters. Together with the CBC, 9 birds were found.
- Red-shouldered Hawk:** One wintered for the 3rd year near Polk City (m. ob.), at the western edge of the usual winter range. Also pushing the range limit was an adult in Hardin Co. 20 Dec and another (or the same one) w of Union, also in Hardin Co., where "it is seen occasionally in winter" (Phyllis Harris fide MPR, BPR). Most unexpected was 1 at Brown's L., Woodbury Co., 7 Jan (BH). There are very few winter records for the Missouri R. valley.
- Red-tailed Hawk:** Only one Harlan's was reported, in Jasper Co. 28 Feb (AJ).
- Rough-legged Hawk:** Although CBC numbers were about average, observers indicated considerable variation in numbers: from absent or scarce in NW Iowa (JV), NC Iowa (MCK), and Appanoose Co. (RLC), to "much more abundant this winter than last" in SC Iowa (DCP, AJ).
- Golden Eagle:** Immatures pop up in widely scattered locations in most winters. One was in Cherokee Co. 13 Feb (MMB), another was near Ames 19 Jan (SJD), and a third was at Shimek S.F. in Lee Co. 11 Jan (AJ). A fourth was in SW Iowa on the Tristate CBC.
- Merlin:** Apparently regular enough in winter for at least one observer to state that "documentation is becoming tedious, and probably superfluous" (JV). I am inclined to agree, as this bird is easy to separate from kestrels both in flight and at rest if seen reasonably well. Most winters yield 1-10 reports. This year 6 were found on CBCs, and the following reports during the winter period brought the total to 9: 1 roosted in a Carroll yard (EW), a female was at Sioux Center 12 Dec (JV), and 1 was at Ames 2 Jan (EM). All were well-described.
- Prairie Falcon:** Probably seen about as often in Iowa as Merlin, especially in the NW. At least 5 were found in NW Iowa (JV), with singles as far east as Hardin Co. on 19 Dec and 20 Feb (MPR), Reinbeck 22 Feb (JF), and Des Moines on the 23 Dec CBC. All were well-described. A sighting from Des Moines 24 Dec was submitted as "Large falcon sp." and was thought to have been a likely Prairie also (Paul Martsching fide SJD).
- Gray Partridge:** This species now occurs statewide. There were 7 on 16 Dec n of Burlington (JF).
- Wild Turkey:** Numbers appear to be levelling off with birds to be found almost anywhere with suitable habitat.
- American Coot:** None were found in midwinter.
- Sandhill Crane:** The only report of this rare-but-regular-in-winter species was of a calling adult flying over Saylorville Res. 21 Feb (SJD), most likely an early migrant. Dinsmore (IBL

- 59:71-74) lists 12 records for Dec-Feb, and indicates that cranes have attempted to overwinter in three winters since 1979-80.
- Killdeer:** The only midwinter report was from the extreme southeast: 1 was at Keokuk 1 Jan (SJD), a rare occurrence.
- Common Snipe:** That this species may winter anywhere in the state is indicated by 1 near Hawarden 5 Jan (JV).
- Franklin's Gull:** What is happening with this species? Following the unusual winter records last year, an adult in "breeding plumage" may have wintered at Saylorville Res. (SJD). It was seen 16, 17, 27 Jan and 2 Feb (SJD), and also 11 Feb (EuA, EIA, DT). Is it far-fetched to speculate that something has affected the metabolism of a Midwest nesting colony of these birds so that normal migration is impeded?
- Ring-billed Gull:** Reacting to the cold December weather, these birds were absent from the Quad Cities 22 Dec-4 Jan (PCP). However at least 8 wintered at Saylorville Res. (SJD, BE) and 2 were at Red Rock Res. 28 Jan (AJ).
- Herring Gull:** Unusual was 1 at Iowa City 27 Dec (TS), where none were found on the CBC. Midwinter reports were of 3 on 16 Jan at Saylorville Res. (SJD), singles at Red Rock Res. 8 and 13 Jan (AJ), and 8 in Lee Co. 11 Jan (AJ).
- Thayer's Gull:** At least two observers are still patiently searching for (and documenting) this apparently regular winter species. At Saylorville Res. two 1st-winter birds were found 7 Dec (*SJD). Even more patience is needed to pick out adults, which should be less common than immatures in Iowa in winter. 1 was at Lock 14 on the Mississippi R. 17 Dec (*BB).
- Lesser Black-backed Gull:** The only reports of this accidental-but-probably-soon-regular species were from Bettendorf, and may have been of the same bird. It was seen 17-19 Feb (*PCP, *JF, WZ, AB).
- Greater Black-backed Gull:** Two reports were received of single adults, probably the same bird, in the Davenport area 13 Dec (*THK, *JF). This species is still considered accidental in Iowa, but should soon be reclassified to casual or even regular. Owing to the presence last year in the Quad Cities of a Slaty-backed Gull, observers are scrutinizing black-backed gulls closely. See the next species.
- Western Gull:** Three documentations of 1 in the Davenport area have been submitted to the Records Committee, and if approved would be Iowa's first record.
- Glaucous Gull:** Up to 3 were present throughout the winter in the Quad Cities area (PCP). There were no other midwinter records.
- Black-legged Kittiwake:** A 1st-winter-plumaged individual was discovered below the dam at Red Rock Res. 9 Dec (*MPR) and was subsequently seen by others on 10 Dec (*SJD, *JF, *AJ). This species is a casual fall migrant in Iowa.
- Mourning Dove:** A few wintered, despite the December cold: up to 17 were in Mason City all winter (JLW) and, somewhat less unusual, 2 were near Council Bluffs 14 Jan (DLR, RoR) and 24 were near Tabor 4 Feb (DLR, RoR, BJR).
- Snowy Owl:** None were acceptably reported on CBCs, and so the only report was a rather sad one: one was road-killed in Sac Co. 27 Dec (RH). It is time for an invasion.
- Long-eared Owl:** Commonly reported from favored roosting locations, it appears that this species can be found whenever looked for in medium-sized bushy conifers anywhere in Iowa. Largest counts were 28 wintering in Polk Co., along with 16 wintering in Madison Co. (SJD). An unusual report was of 1 heard at Coralville Res. 1 Jan (THK).
- Short-eared Owl:** Probably less common than long-eared in winter, but often found roosting with it, the best count was 6 wintering in Polk Co. (SJD, AJ). Rather far north in midwinter was 1 in Cerro Gordo Co. 31 Jan (JLW, CRN).
- Northern Saw-whet Owl:** Is this species more weather-sensitive than larger owls? Wintering numbers were "down drastically" from the last 2 years (SJD, BE), with only 4 found in Boone Co. and 4 in Polk Co. (SJD). However 6 were in Hardin Co. 6 Jan (MPR, m.ob.).
- Belted Kingfisher:** Good numbers wintered statewide, even at Hawarden where 1 was seen 5 Jan (JV).
- Yellow-bellied Sapsucker:** Primarily a migrant, winter records are rare. However 1 was at Glendale Cem. in Des Moines at least until 11 Feb (EIA, EuA). Perhaps trying to overwinter was 1 coming to an Iowa City feeder 7-14 Dec (JF). The December cold must have changed its plans.
- Pileated Woodpecker:** A northerly report was of a male near Mason City 18 Dec and 21 Jan (JLW, CRN).
- Northern Flicker:** A few "red-shafted" birds reach Iowa each winter. One was at Cherokee 30 Jan (MMB). The December cold reduced flicker numbers in NW Iowa (JV).

- American Crow:** The Ames roost again convened, with more than 5,000 birds in late Feb (JJD).
- Red-breasted Nuthatch:** The usual small numbers occurred statewide, mostly at cemeteries or feeders.
- Carolina Wren:** Because of the large increase in numbers in recent years and the cold December weather, reports this winter were of interest. CBC data indicated only a slight decline overall from last year, and 1 at a Mason City feeder 2-5 Feb (FAH, JLW) showed that Carolina Wrens don't just fall over dead when it gets cold.
- Winter Wren:** An unusual midwinter report was of 2 in Boone Co. 9 Jan (EM).
- Golden-crowned Kinglet:** The only negative comment was that they were absent in NW Iowa (JV).
- Eastern Bluebird:** Surprising numbers were still present in midwinter such as 7 in Boone Co. throughout the period (EM), a pair in Ledges S.P. 15 Jan (SJD), another at Pony Creek P. near Glenwood 5 Jan, (BPa, TB) and 1 as far north as Mason City 14 Jan (JLW, CRN).
- Hermitt Thrush:** The only report was from the CBC.
- American Robin:** Flocks were found statewide, but numbers were not large. Best count was the estimated 500 at Coralville Res. in Jan and early Feb (JF).
- Varied Thrush:** This year's representatives were at Centerville (see CBC), and at the Mason City feeder of Tim Phalen at least 29 Dec-6 Jan and 10-15 Feb for the 3rd Mason City record in the last 4 years (JLW).
- Townsend's Solitaire:** One of the season's few rarities, 2 were at Bigelow P. adjacent to Brown's L., Woodbury Co., from 17 Dec-14 Jan (*BH, *JF, m.ob.). At least one observer suggested that 3 might have been present (TB). This species is a casual winter visitor to Iowa.
- Gray Catbird:** None were reported this winter.
- Northern Mockingbird:** One survived the coldest December weather in Madison Co., but may not have survived the winter; it was seen 5 Dec-10 Jan (EIA, EuA). This species is irregular in winter; expected in the extreme south, but it may show up almost anywhere.
- Brown Thrasher:** The only reports were the two CBC birds.
- Water Pipit:** Rather late were 1 or 2 at Saylorville Res 3 Dec (SJD, AJ). Details were provided for 1 at Whitebreast R.A., Red Rock Res. 23 Feb (AJ) and will be submitted to the Records Committee [record early].
- Bohemian Waxwing:** The only report was on the CBC.
- Cedar Waxwing:** The largest flock reported was 1,000 at Don Williams L., in C Iowa 15 Jan (SJD, EM). This species was widespread but only in average numbers.
- Northern Shrike:** The most southerly birds reported with details were in Pottawattamie Co. 8 Dec (TB), Warren Co. 1 Dec (AJ), Marion Co. 10 Dec (AJ), and Johnson Co. 14 Jan and 3 Feb (THK). Fewer wintered at the regular Big Creek S.P. location, only 1 or 2 being found (SJD, BE). At least one observer in N Iowa was surprised to find none (MCK).
- Loggerhead Shrike:** The only reports received other than the meager count of 8 found on CBCs were in Polk and Marion cos. in Jan and Feb (AJ). The Polk Co. bird was compared with a Northern in the area.
- Yellow-rumped Warbler:** Only 1 was found, surprisingly far north but beside a spring 31 Dec on the Van Peenen Trail in Howard Co. (MJH). None were found on CBCs.
- Common Yellowthroat:** Another of the season's rarities, and arguably the best, was 1 closely observed in a yard n of Iowa City 8-9 Dec (*JF) [2nd winter record].
- Northern Cardinal:** While CBC data show a continuing upward trend in numbers, cold December weather may have caused some local out-movement from NW Iowa, where numbers were described as "declining" (JV).
- Rufous-sided Towhee:** Both "spotted" and "eastern" birds are regular winterers in Iowa, the former more common westerly than the latter, and vice-versa. Both wintered at Ledges S.P., where 2 "spotted" were with an "eastern" during January (EM).
- Vesper Sparrow:** This rare wintering bird was reported from two locations: 1 was found 16 Dec near Burlington (*JF), where it might be expected to winter on occasion, but the other was out of the normal winter range near Ames 16 Dec (*SJD, ASF). A third was found on the Davenport CBC.
- Fox Sparrow:** A midwinter record from the edge of the winter range was of 1 at Coralville Res. 3 Feb (THK).
- Swamp Sparrow:** Despite the cold December weather, individuals were found in midwinter in Story Co. 16 Jan (EM) and at the Pine L. spillway, Hardin Co. 23 Jan and 9 Feb (MPR). Most wintering birds occur in the SE third of the state.

- White-throated Sparrow:** One was rather far north for midwinter at Bigelow P., Woodbury Co., 7 Jan (TB). The "Townsend's Solitaire Picnic Table Effect" at work?
- Harris Sparrow:** This species is to be expected wintering east approximately to the counties adjacent to I-35, with largest numbers westerly. Thus 1 at Coralville Res. 1 Jan (THK) and another in Floyd Co. 25 Dec (TS) was unusual.
- Lapland Longspur:** These birds seemed easier to find this year with reports south to Appanoose Co., where 5 were seen 16 Feb (RLC), and Fairfield 17 Feb (DCP). Largest counts were 1,000 near Algona 25 Feb (MCK) and 500 in Cerro Gordo Co. 13 Dec (JLW, CRN).
- Snow Bunting:** Numbers were generally low, despite cold weather in December. Birds were found statewide however. Highest counts were only 50 in Cerro Gordo Co. 13 Dec (JLW, CRN) and 27+ at Red Rock Res. 21 Feb (MPR, BPR, AJ).
- Red-winged Blackbird:** Numbers were average for a year without any big roosts.
- Rusty Blackbird:** This migrant is unusual in midwinter, especially as far north as Kossuth Co., where 6-8 wintered along Plum Creek into mid-Jan (MCK).
- Brewer's Blackbird:** The only sightings were probably of fall migrants: 7 at Badger Creek Area, Madison Co. 5 Dec (EIA, EuA) and 6 in Appanoose Co. 15 Dec (RLC).
- Common Grackle:** Unless roosts are found, this species usually is scattered statewide in small numbers. Examples were a few wintering in Sioux Center (JV), 1 in a Mason City yard 1 Dec through the period (JLW), and another at an Iowa City feeder 1-3 Jan (JF).
- Western Meadowlark:** Several were identified by song, even in midwinter: 15+ were near Liscomb 13 Jan and 20 were there 4 Feb (MPR, BPR). Also there were 21 singing e of Granger on 20 Jan (ReA, PaA).
- Eastern Meadowlark:** Three near Fairfield 17 Feb were considered probably this species (based on plumage, DCP). While meadowlarks are difficult to identify due to variation in such characters, the location and date are suggestive of early migrant easterns. No other reports were received.
- Brown-headed Cowbird:** A midwinter record was 1 in a Fairfield yard 1 Jan (DCP). Few overwinter in Iowa.
- Purple Finch:** Best counts for this average year were 50 at Bigelow P. 7 Jan (TB) and 24 at an Osceola feeder 1 Feb (BLB).
- House Finch:** Now wintering statewide, highest counts are still from E and C Iowa: 55 at Ames 19 Jan (EM) and 30 at Glendale Cem., Des Moines, 4 Feb (SJD). Some unsociable individuals were thought to either be "hiding at someone's feeder" or to have "left town" in Algona (MCK).
- Red Crossbill:** Most crossbills were found to be white-wings, but there were three reports of reds. All were seen in a 19-day period: 1 was at Maffitt Res., Des Moines 15 Jan (EIA, EuA), 2 were on the Univ. of Iowa campus 20 Jan and 3 Feb (JF), and a female was at Iowa City 22 Jan (THK).
- White-winged Crossbill:** This species was widespread this winter although not in large numbers. It could be found at most well-treed cemeteries, especially in December when the best counts were made. Oak Hill Cem. in Council Bluffs had 12-15 on 3 Dec (DLR, RoR, TB), and there were 10 at Oakdale Cem. in Davenport 22 Dec (PCP). Latest record was the small flock of 1-3 present until 16 Feb on the Univ. of Iowa campus (JF).
- Common Redpoll:** This was a good year for redpolls, although not of invasion proportions. Most were with goldfinches and siskins throughout the period. High counts were from N Iowa: an excellent 150 in Cherokee Co. 13 Feb (MMB), and 60 near Algona 25 Feb (MCK). None were s of I-80; most southerly were 3 at Saylorsville Res. Dam 2 Jan (EIA, EuA) and 8 at a Cedar Rapids feeder 19-20 Jan (JF).
- Pine Siskin:** After the bottom dropped out last year, numbers recovered markedly, but not to invasion levels. High counts were 100+ at an Osceola feeder through the period (BLB) and 20-50 wintering in a Davenport yard, 41 of which were banded on 21 Feb (PCP).
- American Goldfinch:** Although numbers were considered "way down" in Cerro Gordo Co. (JLW), they must have gone south to the Armstrong feeder in Madison Co., where 200+ wintered (EuA, EIA).
- Pine Grosbeak:** The only reports were the CBC birds: 5 at Decorah and 1 at Cedar Falls.
- Evening Grosbeak:** The only birds found other than on CBCs were 2 at an Osceola feeder 27 Jan-1 Feb (BLB, EIA, EuA, JF). Even on the CBC only 2 were found, at Red Rock Res. This was a poor year for Evening Grosbeaks.
- Eurasian Tree Sparrow:** Another of this year's few rarities, up to 10 were n of Burlington at the J. Stratton residence and were seen by almost everyone 16 Dec-14 Jan (photo-PaA, ReA, *JF, m.ob.)(2nd state record). This species is slowly expanding its range northward and will probably establish itself in Iowa in the next few years. The only previous record was in summer.

CONTRIBUTORS

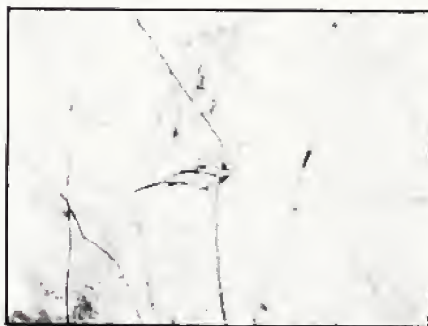
Pam Allen (West Des Moines); Reid Allen (West Des Moines); Eloise Armstrong (Booneville); Eugene Armstrong (Booneville); Tanya Bray (Bellevue, NE); Marion M. Brewer (Cherokee); Beth L. Brown (Osceola); Robert Cecil (Des Moines); Raymond L. Cummins (Centerville); James J. Dinsmore (Ames); Steve J. Dinsmore (Ames); Bery Engebretsen (Johnston); Andrew S. Fix (Ames); Jim Fuller (Iowa City); Ronald Harms (Laurens); Mary Jo Hartogh (Elma); Fred A. Heinz (Mason City); Bill Huser (South Sioux City, NE); Ann Johnson (Norwalk); Matt C. Kenne (Algona); Thomas H. Kent (Iowa City); Erik Munson (Ames); Curt R. Nelson (Plymouth); Babs Padelford (Bellevue, NE); Loren Padelford (Bellevue, NE); Peter C. Petersen (Davenport); Randy Pinkston (Iowa City); Diane C. Porter (Fairfield); Beth Proescholdt (Liscomb); Mark Proescholdt (Liscomb); B.J. Rose (Omaha, NE); Doug L. Rose (Glenwood); Roger Rose (Omaha, NE); Tom Staudt (Eugene, OR); Dennis Thompson (Des Moines); John Van Dyk (Sioux Center); Jan L. Walter (Mason City); Eva Wiedemeyer (Carroll).

OTHER OBSERVERS

* = documentation only

Ann Barker,*Brian Blevins, Cory Blevins, Lewis Blevins, John Cecil, John Hoogerheide, Marietta A. Petersen, Mary Lou Petersen, Jim Sinclair, *Gerald White, David Youngblut, Walt Zuurdeeg.

Box 300, Tabor, IA 51653



*Townsend's Solitaire, Brown's Lake,
14 January 1990. Photo by Doug Rose.*

A Guide to Bird Finding in Kansas and Western Missouri by John L. Zimmerman and Sebastian T. Patti. Univ. Presses of Kansas, Lawrence. 1988. 244 pp., 26 maps, softbound \$9.95. This nearby area includes several locations frequented by Iowa birders with Squaw Creek National Wildlife Refuge heading the pack. It also harbors such "hot spots" as Cheyenne Bottoms Wildlife Management Area in central Kansas, probably the most vital shorebird migration stopover site on the Great Plains. A total of 74 locations are covered. They are organized by biotic communities and keyed to the nearest large town. The location accounts consider all seasons but stress the most significant. Maps are included as needed and are very well done, but a map showing all sites would be useful. The introduction includes a bar chart of abundance of all species and period of occurrence. Another useful feature is an Interstate-70 transect which directs cross-country travelers to nearby birding spots. A list of specialty species with prime locations is also included. Two indices are provided, one for species and one for places.

Judging by the locations that I have birded, the information is clear and accurate. The coverage extends east to route 65 in western Missouri. Residents of southwestern Iowa will certainly want to check this book out, and other Iowans who bird out-of-state should do likewise.--Peter C. Petersen, 235 McClellan Blvd., Davenport, IA 52803.



*Partial albino Red-breasted Merganser, Lake Manawa
11 November 1989. Photo by Doug Rose*